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ABSTRACT

The 12 teacher's guides, emphasizing career education and its infusion into existing curriculum, are for the following units of instruction and suggested grade levels: the department store, K-2; the airport, K-3; measurement and its relationship to baking, K-3; people behind the scenes at school, K-3; books, 1-3; can I be a scientist?, 3-5; careers in earth science, 3-5; life and work in early America, 4; explorers--an introduction, 4-5; inventors who lead--careers that follow, 4-5; safety and health in school and industry, 4-5; and headlines and deadlines, 4-6. Each unit is organized under several strategies and major aims, subdivided into categories of objectives, concepts, suggested activities, resources, and evaluation procedures. Some units conclude with a bibliography of additional resource materials. Material in the units is intended to be flexible and easily adapted to the interests and needs of pupils in the class. (Author/NH)

CAREER EDUCATION TEACHER'S GUIDE

Grades K - 2

DEPARTMENT STORE

Rockland County Career Education Program
Dr. Laurence Aronstein, Coordinator
Rockland County BOCES
West Nyack, New York 10994

PREFACE

This teacher's Guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize Career Education.

It is not our intention that these Guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each Guide is uniquely designed to emphasize how Career Education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing Career Education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the Guides.

Particular mention should be made of those teachers who originally developed the premise for this Guide.

Ruth Berlin - East Ramapo
Janice Goldfarb - Pearl River
Joseph Malgieri - Clarkstown

INTRODUCTION

In studying the community helpers curriculum, we have realized that the department store and its associated career cluster is overlooked. Since children from an early age, are brought to the department store, we felt it necessary to familiarize primary children with people and their jobs in this setting. We, as teachers, realize the great amount and variety of materials which are currently part of the community helpers curriculum. However, it is our intent that this Department Store unit can be infused into that course of study.

In writing the objectives for this K-2 unit, we focused on the Career Education elements of Self-Awareness, Career Awareness, Economic Awareness, Appreciations and Attitudes, Decision-Making Skills, Skill Awareness and Beginning Competence, and Educational Awareness. Very simply, this means that the primary child is introduced, through the use of these materials, to the world of work and its implications for personal growth and self-understanding.

The unit is written so that the teacher may use his/her own creativity and discretion in using the material. We emphasize that it is a flexible unit and the teacher may pick, choose, add or alter the material so that it meets the needs of the individuals in a particular group.

In addition to the references included on each strategy sheet there is a general bibliography at the end of the unit. This bibliography includes references for both the student and background information for the teacher as well. We would like you to particularly note that the book Behind the Scenes in the Department Store, by Leon Harris is an excellent reference guide for this unit and is available at local libraries and through Dr. Aronstein's office. At the end of your guide you will also find a list of jobs which are part of the Department Store cluster which may prove helpful to you. Finally, we hope you have as much fun sharing this material with your class as we had writing it.

STRATEGY NUMBER 1

NAME OF UNIT Department Store GRADE/SUBJECT K-2 Interdisciolinary

MAJOR AIM The child will learn that people do differnt jobs in a department store.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to identify at least ten department store jobs.	It is important for children to recognize that there are various jobs involved in the operation of a department store.	(1) The teacher will show pictures of the department store and its workers to the class. The children will identify and discuss pictures and name as many department store jobs as possible. (Slides available through Dr. Aronstein's office.) (2) Have children bring in a newly purchased item from a departmentstore and trace its origin with emphasis on the people involved and their jobs.	Filmstrip Department Store Workers Singer-Society for Visual Education, 1974 Chicago, Ill. 6061 SEIMC Center Micro Fiche View-Vital Information for Education and Work 3 M Press Concise Handbook of Occupations. Costello & Wolfsen Ferguson Publishing Co. Chicago, 1971 Occupational Outlook Handbook. U.S. Dept. of Labor, Bureau of Statistics, Washington D.C. 1972-73 Career Education A Man' Work. International Teaching Tapes, Inc. Group I. Office and Sal 1972

EVALUATION PROCEDURE: Following this, the student would be able to list or name at least ten department store jobs. They will then illustrate at least one of these jobs for a class bulletin board display.

STRATEGY NUMBER 11

NAME OF UNIT Department Store GRADE/SUBJECT K-2 Interdisciplinary

MAJOR AIM The child will learn that people do differentjobs in a department store.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to choose and compare two jobs involved in the operation of a department store.	It is important for the children to recognize that there are different (a) skills (b) opportunities (c) expectations (d) life styles (e) preparations involved in the different jobs of a department store.	(1) Make a school survey which will elicit the information about which parents (or guardians or siblings) work for a department store. As an addition to this, a bar graph may be made by the children to show job distribution. (2) Invite these people to speak to the children on the various aspects of their jobs. (eg. skills needed, job opportunity, job expectations, life styles, training and preparation. (3) Visit a department store and observe some of these people at work. Teacher should be sure to point out how merchandise is arranged in departments and the function of the store directory and try to obtain a copy.	People Who Make a Department Store. Leon Harris, Lipponcott, 1971 Department Store resource people A local department store

EVALUATION PROCEDURE: Prepare a ditto for matching job characteristics and function to job title. (eg. cashier-takes money, stock clerk-keeps supply up, sales person-shows merchandise, custodian-cleans store, window designer-sets up window displays, etc.) At kindergarten level, this may be done orally.

STRATEGY NUMBER III

NAME OF UNIT Department Store GRADE/SUBJECT K-2 Interdisciplinary

MAJOR AIM Different jobs require different training and/or background

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to recognize that specific skills are sometimes necessary for the performance of specific jobs in the department store. Child will be able to associate a job with the skills necessary in the performance of that job.	It is important for the children to understand that in order to perform specific jobs, a person may need special training eg. pet department plant " shoe " appliance " window designer maintenance worker clerical worker	(1) Ask the classroom helpers to describe their jobs to the rest of the class. The teacher can then discuss the different skills needed to do these jobs well. The teacher then relates these facts back to the department store workers. (2) Using the background information gained from strategy #II have the children choose one of the builetin board jobs and either write or tell a story about the chosen job. (The survey and interviews obtained by the children.)	Classroom teacher People previously interviewed People Who Make Up a Department Store Leon Harris, Lipponcott, 1971 Why People Have Special Jobs - The Man Who Made Spinning Tops BOCES Film Library Let's Write a Story BOCES Film Library

EVALUATION PROCEDURE: Have the children play the "I am a ....." game (eg. "I am a shoe salesman" The child then explains the specifics of being a shoe salesman.

STRATEGY NUMBER IV

NAME OF UNIT Department Store GRADE/SUBJECT K-2 Interdisciplinary

MAJOR AIM To show that classification and alphabetization are important in the use of a department store directory.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
(a) The child will be able to classify and catagorize goods found in a department store by departments. (b) The child will also be able to alphabetize the picture representations of merchandise found in a department store.	It is important for a child to be able to alphabetize and catagorize.	(1) Using the pictures brought in by the students they will then group them according to catagories found in a department store. (eg. men's clothes, toys, tools.) As an individual activity, for reinforcement of this skill, the child can use teacher prepared pictures and sorting boxes. (4) Now that these pictures have been named and catagorized, the children will then arrange them in alphabetical order. This may be done orally or written. Teacher may then make a larger directory of the room incorporating all the items brought in.	Language Arts Skill Books Teacher prepared materials.

EVALUATION PROCEDURE: The children may play "The Directory Game" Children will take turns being the information person while the other children come and ask in what department a specific item may be found. The information person must then guide them to it.

STRATEGY NUMBER V

NAME OF UNIT Department Store GRADE/SUBJECT K-2 Interdisciplinary

MAJOR AIM To show the reaction of money to purchasing power.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to relate the use of money to the purchasing of merchandise in a department store.	It is important for the child to understand the relationship between goods and money.	(1) Each child will bring in a newspaper or magazine advertisement which illustrates a desired object or article of clothing which includes the price. (2) Arrange the articles according to price, ranging from cheapest to most expensive. Discuss money values, pricing and comparative shopping. (3) Using play money, that the class has made, the child will count out the amount needed for his individual picture. (4) Money collected for items should coincide with the amount of goods sold. Discussion of jobs involved with this process in a department store (payroll, cashier, credit manager) should follow. (5) As an added activity, children may role-play the need to return an item bought in a department store. (Exchange of merchandise for money; reversal of the buying process. People and jobs may be salesperson, credit manager, customer service.)	Newspaper Magazines Money units in primary math books Film, Economics-Money #00777 BOCES Film Library Counting My Money Using Money Series #1 John D. Wool, Frank E. Richards Publishing Co. Pheonix, N.Y. 13135 Why We Use Money Wasp Filmstrip BOCES SEIMC Why We Use Money-The Fisherman who Needed a New Knife BOCES Film Libr.

EVALUATION PROCEDURE: Throw all object illustrations into a box or bag and have each child have a turn choosing an illustration. They will then count out the play money needed to purchase that illustration.

STRATEGY NUMBER VI

NAME OF UNIT Department Store GRADE/SUBJECT K-2 Interdisciplinary

MAJOR AIM The child will develop a good self-awareness

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to relate and discuss what motivated him/her to choose his/her job in the small group role playing situation.	It is important for the child to understand his/her feelings and explore what motivates him/her.	(1) Children divide into small groups and discuss, decide and choose a department store job that they would like to role-play. (eg. customer-sales relation executive-employee relation--job distribution.) Discussion should follow which would elicit the "why" of children's choices and how the child felt about himself as he role-played.	Game-Career Insights and Self Awareness Games. Munson, Gockley Game-Helping Hands, Play By Colors Progressive Playthi

EVALUATION PROCEDURE: The teacher will distribute a ditto which will show a blank face. The children will fill in to indicate what their feelings were as they role played. The children will then write or tell (depending on level) why they felt happy or sad as they played their roles.

STRATEGY NUMBER VII

NAME OF UNIT Department Store GRADE/SUBJECT K-2 Interdisciplinary

MAJOR AIM Culminating Activity: to run their own department store.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to produce, using all previous knowledge, a simulation of a department store.	There are many people involved in the planning, organization, and running of a department store.	(1) The children will make merchandise for selling to other students. Some suggested items are: (a) foods and baked goods (b) games and toys (c) clothing articles from felt or paper (d) where it is not feasible to make an item, the child might bring it from home or use a picture of the item. (f) flowers paper or grown (g) art works-original water color, clay finger paintings. (2) The children will then advertise their goods. Discussion of goods display and what makes them attractive should precede this with a contest to follow. (3) They will catagorize their goods and set up their departments with pricing of merchandise. (4) They will then choose the role which they would like to assume in the functioning of a department store. (eg. security guard, salesperson, cashier, custodian, advertising, restaurant worker,(cashier, hostess, first cook, waitress/waiter) etc. See list at back of unit for other jobs. Discussion should attempt to elicit from the children why they picked the job they did. (self-awareness concepts.)	

EVALUATION PROCEDURE: Run the department store for the other children on grade level, etc. The play money from the previous lessons may be used. Department store simulation should include restaurant, credit department and customer service, maintenance worker, display specialists and as many other jobs that can possibly be put into that department store. ~~(see attached list at back of unit)~~

12

Classification of Basic Department Store Positions (Surban Branch Store)

I-Sales
1. Salesperson
2. Sales expediter
3. Sales manager
4. Group manager
5. Merchandise manager

II-Alterations
1. Dressmaker
2. Tailor

III-Payroll
1. Cashier-Clerical
2. Payroll-Clerical
3. Chief Cashier

IV-Customer Service and Credit
1. Customer Service and Credit-Clerical

V-Display
1. Display helper
2. Display assistant
3. Display manager.

VI-Restaurant
1. Kitchen utility man -- Diswasher
2. Salad --Sandwich Maker
3. Second Cook
4. First Cook
5. Waitress
6. Cashier
7. Hostess
8. Restaurant manager

VII-Housekeeping
1. Porter
2. Lead Porter
3. Housekeeping supervisor

VIII-Shipping and Receiving
1. Stockman
2. Checker
3. Marker
4. Packer--Gift wrapper
5. Transfer clerk
6. Platform supervisor
7. Receiving assistant
8. Receiving manager

IX-Store manager's office
1. Merchandise control-clerical
2. Switchboard operator
3. Statistical-clerical
4. Store manager's secretary
5. Store manager.

X-Personnel
1. Record's office-clerical
2. Record's office-clerical
3. Store nurse
4. Training manager
5. Employment manager
6. Personnel manager

Main Store

Buyers
Artists
Cosmetologist
Beautician
Security
Druck driver and delivery men
Advertising
Interior decorator
Public Relations
Fashion Coordinator
Information (Directory)
Photographer
Models
Elevator operator

Services:
(a) Carpet layers
(b) Furniture refinishers
(c) Upholsterers
(d) Appliance installers

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Goodrich, Foster E. Your Future in Direct Selling. Richard Rosen Press Inc., New York, 1965

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Liston, Robert A. Your Career in Selling. Julian Messner Inc., New York, 1967

Lopshire, Robert. How to Make Flibbers, etc. Random House, Inc. New York, 1964

Morton, Brenda. Soft Toys Made Easy. Taplinger Publishing Co., New York, 1972

Parish, Peggy. Sheet Magic--Games, Toys and Gifts from Old Sheets. McMillan Co., New York, 1971

Pflug, Betsy. Egg-speriments. J. B. Lippincott, Philadelphia, 1973

Pitt, Valerie. Let's Find Out About Clothes. Franklin Watts, Inc. New York 1967

Purdy, Susan. Holiday Cards for You to Make. J. B. Lippincott Co., Philadelphia, 1967

Shapp, Martha and Charles. Let's Find Out What the Signs Say. Franklin Watts Inc. New York, 1959

Sullivan, George. How Do They Run It? The Westminister Press, Philadelphia, 1971

Other materials may be obtained through department store public relations departments, personnel training departments, or in the book:

Careers in Retailing
Pennsylvania Retailer's Association
234 State Street
Harrisburg, Pennsylvania 17101

CAREER EDUCATION TEACHER'S GUIDE

Grades K - 3

THE AIRPORT

Rockland County Career Education Program
Dr. Laurence Aronstein, Coordinator
Rockland County BOCES
West Nyack, New York 10994

PREFACE

This teacher's Guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize Career Education.

It is not our intention that these Guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each Guide is uniquely designed to emphasize how Career Education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing Career Education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the Guides.

Part cular mention should be made of those teachers who originally developed the premise for this Guide.

Ruth Berlin - East Ramapo
Janice Goldfarb - Pearl River
Joseph Malgieri - Clarkstown

INTRODUCTION

Welcome to the airport--a vital resource in our community. Over the years, the airport has grown not only in size, but in services it provides to our community. Therefore, in the study of community workers and/or transportation, the airport plays an important role. It is our intent that in this unit on "Airport" the children will become acquainted with career possibilities and opportunities offered at the airport.

The career education objectives covered in this unit include:

Career awareness
Self-awareness
Appreciations and attitudes
Decision making skills
Skill awareness
Educational awareness

Through the use of these objectives, the child will be exposed to the working world in the community. We feel that a child is never too young to start to find out about himself/herself, and how to become a part of the world outside the classroom. We hope this unit will be a beginning in this direction.

In addition to the references in each strategy, there is a general bibliography at the end of the unit. This bibliography includes references for both the student and background information for the teacher. Also at the end of this guide, we have included a list of airport related jobs. We hope you enjoy "taking off" with this airport unit!

NAME OF UNIT Airport STRATEGY NUMBER 1 GRADE/SUBJECT K - 3 Interdisciplinary

MAJOR AIM The child will learn the function of the airport in our community.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to list and describe the services that a community airport provides.	There are many services that the airport provides for the community.	(1) Show children the film "Transportation-A First Film on the Airport" (2) Invite in a resource person from a local airport. (Ramapo, Westchester, Teeterboro) to speak to the children. Teacher should ask the resource person to provide information about the following: (a) services to the community (b) an airport is a 24 hour facility (c) how the airport has changed over the years (d) people who function as community helpers at the airport. (e) range of different airplanes. Note: Prior to the resource person coming to the class brainstorm how the class thinks an airport serves the community.	Film: "Transportation a First Film on the Airport" BOCES Films

EVALUATION PROCEDURE: Have the children draw pictures and write stories depicting how the airport serves the community. These pictures and descriptions can then be used for a bulletin board display entitled:

"The Airport and Us"

STRATEGY NUMBER III

NAME OF UNIT Airport GRADE/SUBJECT K - 3 Interdisciplinary

MAJOR AIM Children should be aware of the many sounds around them at the airport.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to illustrate and describe the sights and sounds found at an airport.	Airports have unique physical characteristics and sounds associated with them.	(1) A visit to the airport with special emphasis on physical observations such as: terrain, unobstructed areas, runways, types of equipment, noises/sounds that they hear, types of buildings. (2) Children should be encouraged to bring along camera and tape recording equipment.	Playschool Airport Game Camera, film, tape recorder

EVALUATION PROCEDURE: A 3 dimensional representation of the airport should be made as a class project using milk cartons, clay, plaster of paris, pipe cleaners, model planes, etc.

If children were able to record the sounds of an airport, a sound guessing game may be played where sounds recorded are played back and children identify what made sound.

STRATEGY NUMBER IV

NAME OF UNIT Airport GRADE/SUBJECT K - 3 Interdisciplinary

MAJOR AIM There are a variety of jobs at an airport, all of which are necessary for its functioning.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to demonstrate an airport related job in a simulated situation.	Each airport job is important in that it makes a contribution to the general functioning of the airport.	(1) Invite any parent, relative or friend who may work in an airport or related job to speak to children about the job with particular emphasis on how the job contributes to the airport team of people. (2) Each child should choose and research a particular airport job which is of interest. Special emphasis should be placed on the fact that all jobs are now open to both sexes.	

EVALUATION PROCEDURE: The children will role-play in a simulated airport situation, the job he/she chose. (The classroom may be set up as: inside of plane, airport waiting room, control tower, baggage loader. Children may enjoy role-playing steward/stewardess during snack time while the class makes believe they are passengers awaiting service.)

STRATEGY NUMBER V

NAME OF UNIT Airport GRADE/SUBJECT K - 3 Interdisciplinary

MAJOR AIM Map skills are important for children to acquire.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to indicate geographic location on a map.	An airplane flies to many geographic locations.	(1) The child will bring in a newspaper and/or magazine advertisement showing a specific destination of an airline. (eg. Pan Am Tokyo. On a lower level this may be limited to the Continental U.S.) (2) Show films. "Using Maps, Measuring Distances" "Maps, An Introduction" (3) Discuss specific map skills needed by a pilot to fly to a certain destination. (On lower level, general concepts like up - down, left-right, near-far, and on higher level, more specific, east, west, south, north, longitude, latitude, etc.) (4) On individual maps, play a game where children have to find specific places. The first one to find the place is the winner. (5) Have children locate the place which is shown on their advertisement.	BOCES Films:: Using Maps Measuring Distances Maps - An Introduction

EVALUATION PROCEDURE: On a map (continental U.S. or World) have children show with colored yarn the starting point and destination for their specific advertisement. (It should be pointed out to the children that these are not necessarily the routes followed by the airlines.

STRATEGY NUMBER V

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STRATEGY NUMBER VI

NAME OF UNIT Airport

GRADE/SUBJECT K - 3 Interdisciplinary

MAJOR AIM The ability to use linear measurement tools is an essential skill

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to demonstrate their ability to use linear measurement tools. (English and/or metric)	Measurement and its related tools are important skills for children to learn.	(1) Teacher will read the books "The King's Inchworm" in which the need for measurement is examined. Book has an accompanying record. (2) Introduce children to measurement tools: rulers, yard sticks, meter sticks, etc. Have children handle tools by measuring desks, halls, windows, books, etc. Discuss comparative size of objects, (in kdg. big and small may be only units used.) (3) Teacher will make a chart which will be used to record heights of children at intervals through the school year. Children will measure each other, whenever possible. (Chart in bargraph form may be used.)	"The King's Inchworm". Hazem and Sonderm CBS Records, 1969 "Using a Ruler" Phonotape Cassette E. Goldberg "How Big is a Foot" R. Myller

EVALUATION PROCEDURE: The children will take down the yarn from the previous lesson, and using the linear measurement tools, measure and record on a chart the length of their yarn. The chart will include the starting and destination points for their particular piece of yarn so the measurement can be related back to the distances between the points. As an added activity, children may arrange yarn in ascending or descending order according to length of yarn.

STRATEGY NUMBER VII

NAME OF UNIT Airport GRADE/SUBJECT K-3 Interdisciplinary

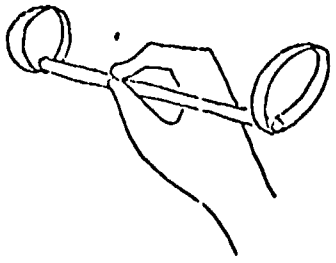
MAJOR AIM An airplane is made up of many parts which are essential to its flight.

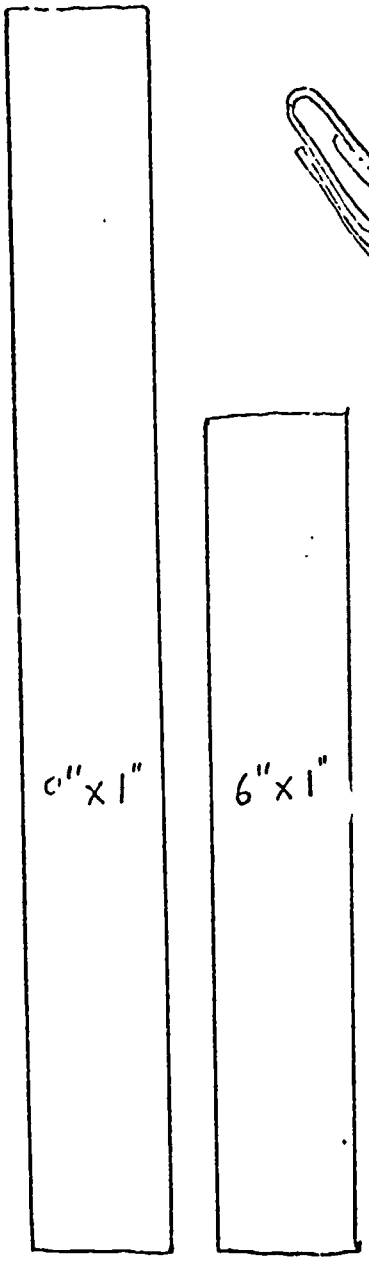
OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to identify the major parts of the airplane (fusilage, wings, propeller, jet engine, tail, etc.,) and construct a model airplane.	There are many parts which go into the making of an airplane.	(1) Show Film Airplanes: A First Film It should be noted that this film shows certain jobs held by men which are now held by both men and women. This should be pointed out to the students. (2) Give children a ditto of an airplane and have them label the major parts. (3) Give children simple aerodynamics lesson to explain how a wing helps a plane fly. (a) Hold a piece of paper against your lower lip so that it curves over the back of hand and is held at the top edge by thumb. Blow only at the curved top of paper and watch it rise. (4) Optional: Have students put together a simple airplane model which can be purchased at a local toy store.	Airplanes: A First Film BOCES Film Library Earth, Air, Fire and Water The Science Discovery Series Jordan Makower Technifax, Mass. 1969

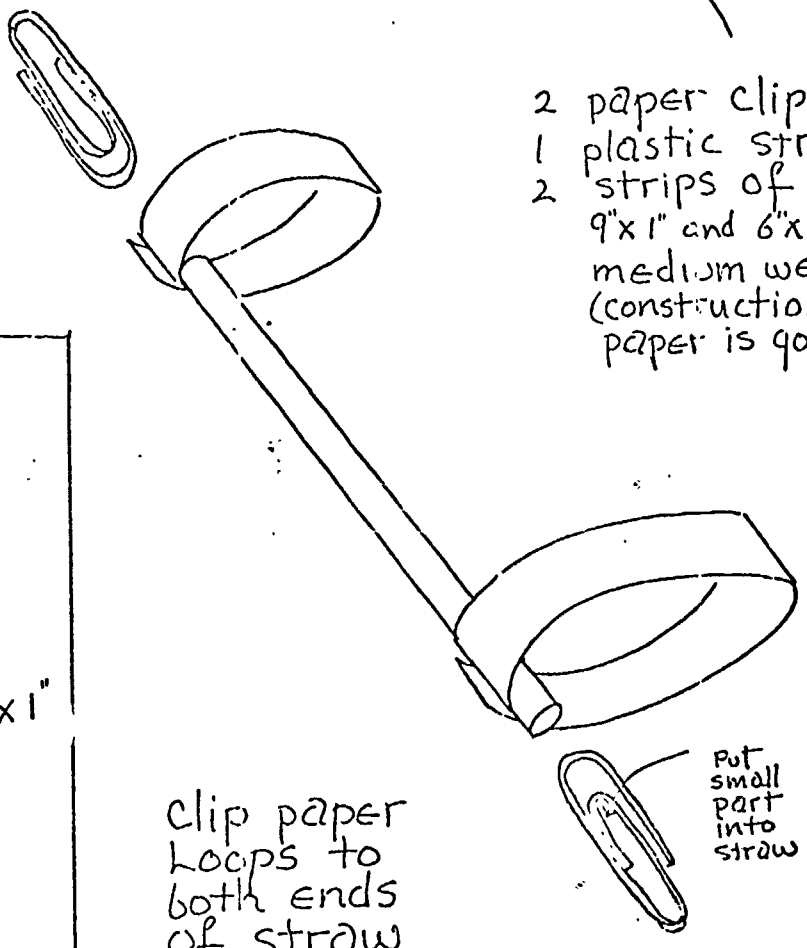
EVALUATION PROCEDURE: Have children build a model airplane. This may be done with: paper, balsa wood, scraps of cloth, prepared models, tec. Using the principles learned, have the children fly their models. (Enclosed references on a paper glider and spinners can be utilized.)

Note: As an extension of this activity, a mobile may be made using completed airplanes or airparts. Also cookies and/or bread may be baked in the shape of an airplane.

PAPER GLIDERS





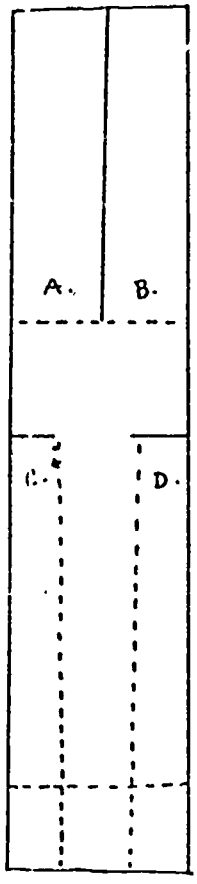


2 paper clips
1 plastic straw
2 strips of paper 9"x1" and 6"x1" medium weight (construction paper is good.)

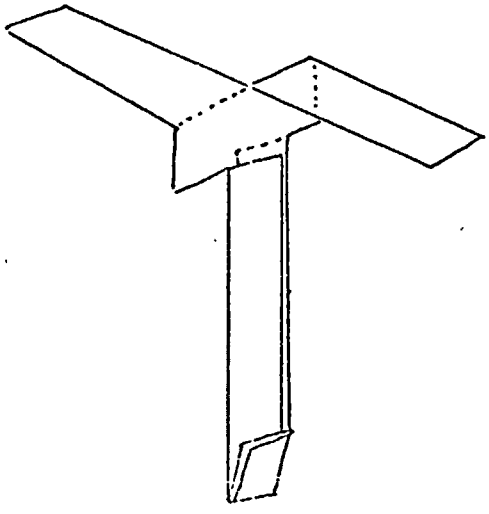
clip paper loops to both ends of straw

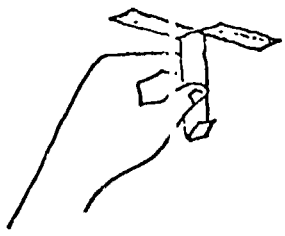
sail forward, small loop in front. If it doesn't fly beautifully check proportions vs. weight.

PAPER SPINNERS



use medium stiff- paper.



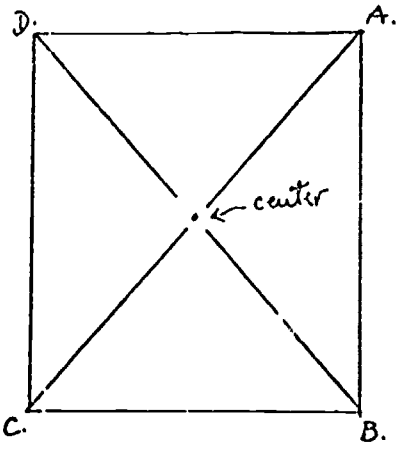


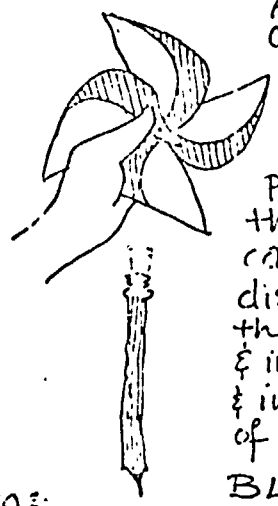
cut along solid lines
Fold A. forward
Fold B. backward
Fold C. Forward
Fold d. backward
Bend the stem at E.
Hold stem upright
drop from high place

nature made the first spinners.

pinwheel

CUT SQUARE
cut corners almost to center





Bend A.B.C.D corners to center

Push a pin through a cardboard disk - into the 4 corners & into center & into eraser of pencil.

BLOW.

more wonderful air launchers can be found in The Great International Paper Airplane Book. by Hanger, Dippel and Gossage, Simon and Schuster.

STRATEGY NUMBER VIII

NAME OF UNIT Airport GRADE/SUBJECT K - 3 Interdisciplinary

MAJOR AIM It takes many people to provide services for an air flight.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to trace the people performing their occupational roles from departure to destination on an imaginary air trip.	Many people and different jobs are necessary in air travel.	(1) Class will brainstorm an imaginary airplane trip. Points of emphasis should be the jobs people do to expedite this trip; the sequence of these activities, the essential linkage of these jobs. (2) The children should then divide into small groups and write about and/or draw pictures of the people and the jobs brainstormed. (Each group should describe different jobs and the teacher should be certain that the full range of jobs are covered.) (3) A creative writing experience dealing with what each child might find at his/her imaginary destination.	

EVALUATION PROCEDURE: A class roller movie will be made which uses the children's drawings and written descriptions placed in sequential order to show the people performing their occupational roles from departure to destination on an imaginary air trip.

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For assistance with an project related to maps contact: Rockland County Planning Board
County Office Building
New Hempstead Road
New City, N.Y.

Phone 638-0500 (914)

A valuable resource for any work involved with maps and/or land use in Rockland County. The office staff is most helpful providing information about Rockland County mapping. Copies are available but expensive. Can be used in the office. Contact: Mr. A. Askerberg, Mr. N. Shute

CAREER EDUCATION TEACHER'S GUIDE

Grades K - 3

MEASUREMENT AND ITS RELATIONSHIP TO BAKING

Rockland County Career Education Program
Dr. Laurence W. Aronstein, Coordinator
Rockland County BOCES
West Nyack, New York 10994

CAREER EDUCATION TEACHER'S GUIDE

Grades K - 3

MEASUREMENT AND ITS RELATIONSHIP TO BAKING

Rockland County Career Education Program
Dr. Laurence W. Aronstein, Coordinator
Rockland County BOCES
West Nyack, New York 10994

PREFACE

This teacher's Guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize Career Education.

It is not our intention that these Guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each Guide is uniquely designed to emphasize how Career Education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing Career Education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the Guides.

Particular mention should be made of those teachers who originally developed the premise for this Guide.

Sheila Abrams - East Ramapo
Elvira Darmiento - Nyack
Nickolas Kelepis - Nanuet

INTRODUCTION

Few topics in elementary mathematics offer as many opportunities to use motivational material as does the area of measurement. It also affords an excellent opportunity to infuse many career roles into the every day curriculum. This is the aim of "Measurement and its Relationship to Baking" career guide.

Each strategy in this guide places emphasis on an occupational role which involves measurements with one or more hands on activities for the student to become involved in. The goals of the guide are to increase the child's understanding of himself, his decision-making skills, the importance of measurement in his every day world as well as the better understanding of his eventual role in the world of work.

STRATEGY NUMBER 1

NAME OF UNIT Measurement and its Relationship to Baking GRADE/SUBJECT K-3

MAJOR AIM To help pupils develop an understanding of liquid measures in their every day life.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The pupils will be able to differentiate among the four units of volume (liquid) measurement: ½ pint, pint, quart and gallon.	The gallon is the basic unit of measure of volume. The gallon is made up of: 4 quarts 8 pints 16 half-pints	(1) Brainstorm with pupils to discover what substances and things come in gallon containers, (eg. gasoline milk, ice-cream, paint, orange juice.) List them on blackboard and discuss. (2) Class activity to fill fish tank using milk container obtained in school and at home. Pupils estimate how many half-pints will fill the fish tank. Then pupils fill tank using ½ pint containers. Discuss their estimation with actuality. Pupils repeat process using pint, quart and gallon container. (3) Pool builder is invited to visit classroom to demonstrate using pictures, slides, or small public pools, the relationship between size of pool and number of gallons it can hold. (4) Teacher reads story, The King's Inchworm to class. Discuss with pupils idea of a basic measure.	Cup) Pint) Measuring Quart) equipment Gallon) The King's Inchworm Book and 45 r.p.m. Record. C.B.S. Reco: 1969. A Little Library Book.

EVALUATION PROCEDURE: Each pupil is given a half-pint, pint or quart container. They estimate how many fills of their container will fill an empty gallon can. Then they perform this task to verify their answer.

STRATEGY NUMBER 11

NAME OF UNIT Measurement and its Relationship to Baking GRADE/SUBJECT K-3

MAJOR AIM To help pupils use liquid measures (cups, pints, quarts, gallons)

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The pupils will be able to measure liquid using half-pint, pint and quart containers.	Liquids are measured using half pint, pint, and quart containers	(1) Each pupil uses his $\frac{1}{2}$ pint milk container. Fill milk container with colored water. Pour colored water into a pint container. How many $\frac{1}{2}$ pint containers will fill up a 1 pint container? Pupils do this activity to answer these questions by using their own containers. (2) Invite mothers to class to make jello with pupils as her helpers. Pupils use $\frac{1}{2}$ pint, pint and quart containers as units of measure. (3) Class trip to Strawtown Dairy to observe how milk is measured for each size container (optional). (4) Using a simple recipe calling for liquid measurement, have students work in small groups and ready the ingredients for their recipe.	Containers, milk supplied by teacher and pupils 1/2 pint pint quart Class mothers Strawtown Dairies (New City, N.Y.)

EVALUATION PROCEDURE: Divide class into small groups. Using questions from suggested activity, have each group demonstrate their ability to measure; $\frac{1}{2}$ pint, pint and quarts.

STRATEGY NUMBER III

NAME OF UNIT Measurement and its Relationship to Baking GRADE/SUBJECT K - 3

MAJOR AIM To help pupils to develop an understanding of measurement and its relationship to the world of work and a baker.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The pupils will be able to explain the role of the baker and the measurements he uses in his job.	The cup is a unit of measure for both liquids and solids. A cup is equal to a $\frac{1}{2}$ pint. There are 8 ounces in one cup.	(1) Each pupil receives two $\frac{1}{2}$ pint paper cups (8 oz.) Pupils measure a cup of water and a cup of sugar. Elicit from pupils fact that the same container is used to measure both solids and liquids. (2) Invite some mothers to bake a cake in school with pupils' help. Pupils selected to use cups to measure water, milk, flour, and sugar for cake. (3) Visit local bakery to see how ingredients are measured in the making of breads and cakes, and/or have local baker visit classroom. (4) Puppet Show Children put on a puppet show by dressing a puppet as a baker, and pretending the baker is being interviewed on television. One child manipulates and talks for the interviewer, while another talks for the baker puppet. The interviewer asks questions concerning baker's work. (5) Role Playing Have each child demonstrate to the class by acting out one task he believes a baker performs. The other children will watch his actions and try to guess the task being performed. The one who correctly guesses the task becomes the next presenter. Tasks: putting ingredients in a mixer; mixing dough by hand; mixing batter with an electric mixer; cutting out cookies, doughnuts; decorating a cake; putting items to be baked into the oven; putting finished items into boxes; writing down orders.	"Workers We Know" (Teacher's Manual) Programmed Work Awarenes Kit - Level B Jack Frost, Linda Ratlif Chronicle Guidance Publications Moravia, N.Y. 13118 (1972) Liotta's Bakery Route 45 near Eckerson Road Spring Valley, N.Y. Film - BOCES "Numbers in Our Lives"

EVALUATION PROCEDURE: The student should be able to verbally list or compile a written list of tasks the baker performs including measurements necessary to complete these tasks.

STRATEGY NUMBER IV

NAME OF UNIT Primary Unit in Volume Measurement GRADE/SUBJECT K - 3

MAJOR AIM To develop the concept that there are economic rewards and personal satisfactions involved in being a baker

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to distinguish between some negative and positive aspects of a baker's career.	The baker is paid for his work. He uses his money to buy things he wants and needs. The children will be able to infer that economic remuneration is one of the rewards for working. People work to satisfy many needs.	(1) Pupils play a game called "Riddledee Rye". One child thinks of something a baker might buy to do his work. The only clue given is the beginning letter of the item. The child who guesses correctly gets to be it. (2) Show pupils picture chart story. Discuss the baker's feelings in different parts of story. Elicit from pupils how they think the baker feels in different economic situations; eg.: pay day, buying food for picnic; can't afford a vacation (3) Ask the children: "How much money should you be given for the jobs you do at home?" Give children appropriate amount in play money. Ask: "How would you spend this if it were real?"	"Workers we Know" Programmed Work Awaren Kit - Level B Frost & Ratliff p. 34 - 35 BOCES Free bakery kit Ward Baking Compan

EVALUATION PROCEDURE: Have children list tasks that they do at home and school that make them feel happy, and those that make them feel sad.

STRATEGY NUMBER V

NAME OF UNIT Measurement and its Relationship to Work GRADE/SUBJECT K - 3

MAJOR AIM To help pupils use teaspoon, tablespoon, and cup as units of measure

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Pupils should be able to use the units of teaspoon, tablespoon, and cup to produce a product.	Teaspoon is a unit of measure for volume. Three teaspoons equal one tablespoon. Eight tablespoons equal $\frac{1}{2}$ cup. Two $\frac{1}{2}$ cups equal one cup.	(1) The teacher may have the pupils use salt or sand to learn to make a level teaspoon and tablespoon. Pupils experiment to elicit relationship among teaspoon, tablespoon, and cup. (2) Candy making activity - The teacher may wish to divide the class into small groups. Using all measures, the pupils will make candy. Each child in group will have a specific task to perform. The children will eat their finished product. The teacher may point out a candy maker is called a confectioner; and may read about and discuss candy making.	Candy Receipe (see attached sheets) Teaspoon Tablespoon Cup Spatula Tongue Depressor Salt Sand Charley and Chocolate Factory by R. Dahl

EVALUATION PROCEDURE: The teacher may evaluate this unit by observing how the pupils work together, and use measures competently. The candy-making activity by the pupils may serve as a culminating activity and evaluation. Teacher should ask for results of experiments about relationships between teaspoon, tablespoon and cup.

Strategy V (Teacher Information)

CHOCOLATE MARSHMALLOW CANDY

Ingredients

1 pkg. instant chocolate pudding
1 lb. confectioner's sugar
1 egg white
2 tbs. milk
1/3 c. (softened) margerine or butter (5 1/3 tb.)
1/3 c. marshmallow cream

Utensils

1 mixing spoon, knife, large mixing bowl, measuring tablespoon wax paper, measuring cup

Procedure (12 steps)

1. Open instant pudding package, pour into mixing bowl.
2. Open confectioner's sugar box. Add $2\frac{1}{2}$ c. sugar to mixing bowl.
3. Pour 2 tbs. milk over sugar and pudding mix.
4. Separate egg yolk and egg white. Add egg white to mixture. Mix well.
5. Add softened margerine or butter to mixiure. Mix with a spoon for three minutes.
6. Wash hands very well. Dry
7. Knead by hand until mixture is like dough.
8. Spread wax paper on desk, sprinkle some confectioner's sugar on wax paper. Put dough on top. Flatten dough to $\frac{1}{4}$" thick, and into a square.
9. Cut into 5 strips, $1\frac{1}{2}$" wide.
10. Spread marshmallow cream on 4 strips and pile on top of each other with 5th strip (plair) on top.
11. Wrap in wax paper and refrigerate.
12. When hardened, remove from refrigerator, slice and eat.

CAREER EDUCATION TEACHER'S GUIDE

Grades K - 3

PEOPLE BEHIND THE SCENES AT SCHOOL

Rockland County Career Education Program
Dr. Laurence W. Aronstein, Coordinator
Rockland County BOCES
West Nyack, New York 10994

IMPORTANT PEOPLE BEHIND THE SCENES AT SCHOOL

INTRODUCTION

UNITS

I	Telephone
II	Truckers - Food
III	Truckers - Non-Food
IV	Piano Tuner
V	Sanitation Engineer
VI	Maintenance Workers

INTRODUCTION

In writing this unit, "People Behind the Scenes," we hoped to bring "out front" the career areas that make important contributions to our everyday life. In doing this, we have used material that is part of your existing curriculum. However, our emphasis is directed toward Career Education. Since Career Education begins with the individual in his very personal milieu, we have attempted to focus the units on what is familiar to the K-3 youngster.

The objectives for each unit in this Career Education Guide stress the themes of: Self-Awareness, Educational Awareness, Career Awareness, Economic Awareness, Decision Making and Employability Skills. Very simply this means that the primary child is introduced, through the use of these materials, to the world of work and its implications for personal growth and self-understanding.

This Career Education Guide has a broad scope of information and activities. Each teacher should feel free to choose from these units, the particular activities and information, which seem appropriate to the needs and interests of her children. Although the units are linked by common themes, they need not necessarily be used sequentially.

There is a bibliography at the end of each unit, with references to the particular book or audio-visual material, included in each strategy, for your convenience. We hope that these units will be a beginning for Career Education in your classroom.

PREFACE

This teacher's Guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize Career Education.

It is not our intention that these Guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each Guide is uniquely designed to emphasize how Career Education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing Career Education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the Guides.

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Noel DeBoyace	Haverstraw-Stony Point
Ronna Heidings	Haverstraw-Stony Point
LaVerne French	Haverstraw-Stony Point
Joyce Judson	Ramapo
Ruth Kissel	East Ramapo
Bertha Mann	Haverstraw-Stony Point
Susan McGovern	Ramapo
Rosalind Shanker	East Ramapo
Lola Smith	Clarkstown
Gladys Webber	Clarkstown

Acknowledgment should also be given to those teachers who rewrote and reinterpreted those Guides into the present form presented here.

Ruth Berlin	East Ramapo
Nickolas Kelepis	Nanuet
Ursula Pardo	Clarkstown

STRATEGY NUMBER 1

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K - 3

Major Aim Telephone: The child will learn the value of the telephone in our society

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to recognize the importance of the telephone in many aspects of his daily life such as emergencies, daily messages, social communications	The telephone is an important and helpful means of communication in our society. The student will learn about himself through understanding and experiencing roles through the use of the telephone.	1) Role play situation where child returns from a distant trip. Example: Child returns from visit with grandparents and calls to thank them for a fine visit, and tells them he had a safe return. 2) Role Play situation where child arrives at a friend's house and lets his mother know where he is. 3) Role play the use of the telephone in a variety of emergency situations (i.e., fire, police) Examples: a) kitchen fire is out of control and child's mother is visiting a neighbor. b) child calls police to report a lost dog, cat or stolen bicycle. 4) Make a log of all the personal telephone calls made or received in one week--Date, Time, Person, Reason, Time Length. 5) Interview the school secretary for a summary of telephone usage. Have students prepare questions.	Develop Index Cards with activity printed on them.

EVALUATION PROCEDURE: 1) The child will demonstrate at least five ways in which he might use a telephone each day, using a toy telephone. The teacher will observe role playing situations to assess child's ability to function in emergency situation, social contacts and in taking daily messages.

STRATEGY NUMBER 2

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K-3

Major Aim Telephone: The child will learn the value of the telephone in our society

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to identify at least five of the following means of communication: oral and sign language; smoke signals; drums; picture-writing; telephone; telephone; telegraph-Morse Code; radio TV, intercom. The child will be able to use at least one of these means of communication	Man has always found ways to communicate. Specific means of communication have met man's needs at different times.	1) The teacher and children brainstorm to identify various means of communication. 2) Role play: Make up oral and sign language to see if friends understand them. 3) Role Play: Students will communicate with picture writing and share their communication in order to see if their friends understand. 4) Tap out message in Morse code and identify message. (Only for students who know Morse Code.) 5) Have children develop their own codes and then beat out drum messages using their own code. Have friends try to guess message and break the code. 6) Dramatize actual sign language associated everyday with such specific occupations as trucker, air traffic controller, traffic policeman TV or radio engineer, conductor, train engineer or teacher. Parents representing various fields, might come in and demonstrate non-oral communication in their jobs. 7) Show film on "Communications-A First Film - 9 min. BOCES film library 8) Have sign language for the deaf demonstration.	Books on communication No. 5 Films-BOCES-"Communication-A First Film" 9 min (#15, 8)

EVALUATION PROCEDURE: The teacher will ask each child to transmit a message using one of the brainstormed methods of communication. Then the child will demonstrate how his chosen means of communication (i.e., sign language, drums) compares with the telephone as a means of communication in reference to length of time, quality of composition, type of transmission instrument, quality of responses and accuracy.

STRATEGY NUMBER 3

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K-3

Major Aim Telephone: To learn how to dial and answer the phone correctly.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will demonstrate how to use the telephone for specific purposes as: how to answer politely; how to take a message properly; what to do in the event of a busy signal or wrong number; what to do in the event of a crank phone call; also the use of "411" information number.	There are necessary skills which must be mastered before the telephone may be used properly.	1) Role playing: Have two toy or real telephones. When the bell rings, one child picks up the phone. Simulate: a) Wrong number--how to answer without revealing number caller has reached, but politely saying that the number is incorrect, please tell operator. Example: What number are you calling? Sorry, you have the wrong number. b) Parent is not available to answer at the moment; get caller's name, number and write message on a piece of paper. c) Busy signal--Hang up and call again, later. d) Dial operator in case of a problem--one child pretends to be operator and takes all the information. e) When phone is answered, politely explain who is calling and to whom you would like to talk. Say "good-by" at the end of your conversation. f) Don't talk too long. Simulate unnecessarily long conversation. g) Hang up immediately in the event of a crank phone call. Inform parents of the call. h) Role play a situation where telephone number is not available and child must dial 411 for assistance and information. i) Show film "We Learn About the Telephone" to understand usage, history of communication and development of telephone.	Tele-trainer(#16) Kit from Telephone Company or toy phones Develop Index cards with role-playing script Film: "We Learn About the Telephone", 1964 16mm sound, 25½ min. Bell System Telephone office(#9)

EVALUATION PROCEDURE: Teacher will observe how the children answer the telephone during the role-playing activities. Teacher asks a child to answer the phone and teacher (or other child) acts as person having the wrong number, leaving a message and asks child to write down the message to give to parent. Child pretends to be operator and other child pretends he has a problem. Teacher will observe how well child articulates the problem and how well he understands the answer.

STRATEGY NUMBER 4

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT K-3

Major Aim Telephone: To show how to set up a telephone directory and how to use it properly

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to set up a class telephone directory and be able to use it in a practical and efficient way (i.e., aiphabetical order.)	The writing and use of the telephone directory requires specific skills such as alphabetizing, accurate reading of digits.	1) The following activities are to be used sequentially to develop the need for alphabetising and classifying in the telephone directory: a) Ask children to bring in their phone numbers and addresses. b) Hand in name, number and list them in random order (using board or desk) without alphabetizing. c) Divide class into two groups. Ask each group to find the number of a child in the class and let them hunt to see which group finds the number first. d) Ask children if they can figure out an easier way to locate a number. e) Elicit response from children that alphabetizing would simplify and speed up the process. f) Have children alphabetize their own names and numbers in the Directory. g) Have two groups find numbers, with one group using alphabetized list and the other using random list. Children should discuss which method proved simpler, faster and easier. 2) Have local directories available for children to find their own telephone numbers.	Listing of all students' phone Nos. Local Phone Directory

EVALUATION PROCEDURE: Each child has the task of locating a classmate's name and telephone number in class directory. Teacher observes this process for evidence of alphabetizing skills and digit reading and recording.

STRATEGY NUMBER 5

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT K - 3

Major Aim Telephone: To show how to set up a telephone directory and how to use it properly

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to use local telephone directory including the Yellow Pages in order to shop, find recreational facilities and services.	The use of the Yellow Pages requires the skill of title classification.	Tell each child he may buy: a bicycle, a baseball mitt, a doll, a game of "Candy Land", a set of building blocks or airplane model. Find category in Yellow Pages which will help them locate store (s) in which they may shop for these items. Child wants to see a movie matinee or go bowling or ice skating. Where can he het pertinent information in the Yellow Pages.	Yellow Pages Local Phone Directory

EVALUATION PROCEDURE: Each child will choose from a list of tasks such as: fix a bicycle, care for a sick pet, buy a toy, go to a movie or skating rink and then use Yellow Pages to accomplish his assignment. Teacher will observe classification techniques of children as they perform their tasks.

NAME OF UNIT People Behind the Scenes STRATEGY NUMBER 6 GRADE/SUBJECT Primary K-3

Major Aim Telephone: What makes the telephone work!

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
To demonstrate the various parts of the telephone and their function.	Sound travels across a medium through vibrations. Sound is carried through wires which transmit these vibrations	1a) Children will make their own simple telephone. Tie string between two paper cups or orange juice cans. 1b) Children take apart an old telephone; discuss use of the mouthpiece, wire, earpiece and the dialing apparatus. 1c) Show film "Phone Man to children 2a) Children walk from school to road and observe all telephone equipment as: poles, wires, installation boxes, telephone trucks, etc. 2b) Teacher will read book, "Your Telephone and How It Works" to the children.	String Paper cups Orange juice cans Read story (#1) Old Telephone Film (#13) Read (#7) Call Bell Telephone for Repairman to demonstrate parts of phone. Trip to phone co. and/or demonstration by service man in classroom.

EVALUATION PROCEDURE: Each child selects a single piece of telephone apparatus and explains its function in the total telephone operation. Teacher notes child's knowledge of the specific part and his grasp in the total telephone process.

STRATEGY NUMBER 7

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT k - 3

Major Aim Telephone: Culminating activity. To show that the telephone is a complex network which relies upon many people to function

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to differentiate among and describe the function of the following telephone workers: operator, information operator, lineman, repairman, installers and office workers.	It takes many people with specific skills who work together as a team to make a telephone work.	Take a trip to the telephone company: Observe all the different kinds of workers at their jobs in the office. Class will develop a list of workers and their functions. Have resource person at Telephone Company discuss workers who function outside of office as repairmen, installers and linemen.	#14 Pictures of workers at Telephone Co.

EVALUATION PROCEDURE: Using a set of pictures from Telephone Company literature. children will identify activities of telephone workers as picture of each one is shown. Children write captions for pictures.

NAME OF UNIT People Behind the Scenes STRATEGY NUMBER 8 GRADE/SUBJECT K-3

Major Aim Telephone: Culminating activity. To show that the telephone is a complex network which relies upon many people to function.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
1) Student will be able to list personal advantages and disadvantages of one of the following jobs: operator, information operator, linemen, repairman installers and office workers. 2) The student will be able to describe education and training of at least two of the following telephone occupations: operator, information operator, lineman, repairman, installer and office worker.	1) Occupation affects life style. 2) Different jobs require differing amounts of education and training	1) Bulletin board on telephone workers is made from children's drawings of workers at their jobs. 2A) Interview workers from/or at telephone company to explain their function there. Class develops interview questions such as: (1) What hours do you work and how does this affect your time spent with your family? (2) Do you work indoors or outdoors? (3) Do you select your own activities? (4) What training did you need to get your job? (5) Did you learn anything else after you got your job? (6) What do you like best about your job and what do you dislike about your job? (7) What are the opportunities to advance in your present position? (8) Is there a salary range for your job? 2B) Have child role-play the specific job he would choose at the telephone company. Tell why he would choose this job. Then have small groups combine their individual functions into a team effort to demonstrate overall telephone operation. 2C) Have child make a telephone tree showing all the workers he knows at the telephone company. 2D) Invite telephone personnel representative to speak to class and fill in any job information not offered by parent resource person. Be guided by interview questions used with parent resource person.	Bulletin Board Resource People who work for Telephone Co. Alliance of Independent Telephone Unions Rm. 302, 1422 Chestnut St. Philadelphia,Pa 1910 Communication Worker of America 1925 K St., N. W. Washington, D. C. 20006 Int'l Brotherhood of Electrical Worker 1200 15th St., N. W. Washington,D. C.

EVALUATION PROCEDURE: Teacher will observe the child role playing one of the specific telephone occupations noting child's awareness of job function. Class will make a chart listing all telephone occupations discussed, training and skills required for job; and customary hours worked in each shift. Have classroom "debate" on the advantages and disadvantages of each of the following: operator, information operator, lineman, repairman, installer and office worker. Teacher will note children's grasp of occupational advantages and disadvantages associated with each job.

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3. Bunton, Henry, The Telephone, Day, 1962
4. Greene, Carla, I Want to Be a Telephone Operator, Children's Press, 1958
5. Hogben, Lancelot, The Wonderful World of Communication, Doubleday, 1959
6. Rossomando, Frederic, Earning Money, F. Watts, 1967
7. Schneider, Herman, Your Telephone and How It Works, McGraw Hill, 1952
8. Come to Work With Us-Telephone Co., Children's Press, 1972

AV MATERIAL

9. BOCES Film - Understanding Communications, color, 10 min, PE 00637
10. Bell System Telephone Offices-We Learn About the Telephone, sound 25½ min.
    Source: Educator's Guide to Free Films
11. Kit containing Teacher's Guide and student booklet emphasizing correct usage of the telephone through role-playing. Bell Telephone-
    Source: Free and Inexpensive Learning Materials
12. Communication Knits Our World Together, FS-Eye Gate
13. Inventions That Speed Communication, FS-Eye Gate
14. Northeastern Area Film Library, AT&T Long Lines Film Phone Man, color 16½ min.
15. Rockland County Regional Education Center Extending the Classroom-A Field Trip Guide, New York Telephone Co. TEL NO. 694-8226
16. BOCES film-Communications-A First Film - C 9 min., P-I-00079
17. Tiletrainer kit from Bell Telephone

STRATEGY NUMBER 1

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K-3

Major Aim Truckers-Food Suppliers: The importance of food suppliers to the school

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
To become aware of the fact that food is delivered daily to the school in large quantities. Children will be able to use the scientific method to carry out simple experiments	Many people are needed to deliver food to our school. The coordination of food workers is necessary for the delivery of fresh food daily.	The teacher will check with the cafeteria about delivery procedures so the following activities can be implemented: a) Visit the kitchen during a delivery. b) Observe the ice cream man and note of quantity, types or kinds, and the provisions needed to keep it cold, etc. C) Allow fresh bread, lettuce, produce to be exposed to the air in the room. Wrap one piece and let the other remain in the room air. (This would lead to spoilage, molds, etc.) d) Let milk and ice cream to remain at room temperature for two days. Control group used in the kitchen refrigeration.	Kitchen helpers and staff Ice Cream Man Fresh bread, celery, lettuce, carrots, bananas, apples Refrigerator, milk and ice cream

EVALUATION PROCEDURE: Discuss with children what would happen if the food could not be delivered daily to our school. Discuss and explain the results of the science experiments done in class. Children will formulate on paper their own conclusions from doing these experiments. Make a class log of all food delivery men who come to school each week. What do they bring and in what quantities? How is the food ordered?

STRATEGY NUMBER 2

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT k - 3

Major Aim Truckers: Food Suppliers. Who supplies the food that is on the truck?

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will recognize that farmers, wholesale food distributors and factory workers are all involved in producing and processing the food that the truck driver brings to the school.	There are many people involved in getting the food to our school.	1) Each child should bring in a food sample. Through class discussion, establish the origin of the food and how it reached the child in its final form.(i.e., processed or unprocessed, etc.) 2) Using outline map of U.S. to pinpoint the locality producing the food used in various school lunches (lettuce from California) 3) See Film "Story of Wholesale Market" C 11 min, 00036 BOCES. 4) List at least 5 occupations stemming from the process of getting food from the farm to the school. 5) Using the occupation already listed, teacher makes ditto with pictures of each of the workers to be colored. Student will cut out and paste pictures on a flow chart in sequential order.	"How We Get Our Foods" FS-SVE 4 filmstrips: Milk, Bread, Fruits and Vegetables, Meat (#28) Film "Story of Wholesale Market" 00036 BOCES (#22) Outline Map of U.S. Ditto with pictures of 5 workers-- farmer, wholesaler, distributor, factor worker and truck driver

EVALUATION PROCEDURE: Teacher will check flow charts to note child's understanding of sequential steps involved in food chain.

NAME OF UNIT People Behind the Scenes STRATEGY NUMBER 1 GRADE/SUBJECT Primary K-3

Major Aim Truckers--Non-Food The importance of delivery men. Example: Mailman

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to describe the job of the mailman. The child will be able to list the postal workers' functions as they operate in the postal team. The child will practice letter writing skills and will demonstrate proper format in letters and addressing procedures.	The mailman performs a variety of duties in his job, many of which are behind the scenes. It takes many postal workers functioning as a team to get a letter processed. There is a correct form for the friendly letter and envelope.	1) Class takes trip to U. S. Post Office to observe mail being processed. Class brings with them a piece of mail to be posted and processed. Class observes process; and postal workers performing their interdependent duties. 2) Class will observe and question mailman as he delivers and picks up the mail from school. Sample questions: What do you have in your bag? How did you get to our school? Where are you going from here? 3) Class sets up and organizes its own postal service. Use orange crates, cardboard boxes, bags, etc. Children take turns being the mailman and perform his specific tasks. 4) Class writes original dramatization dealing with post office activity. Children may have roles either as postal workers, mailmen, letters or postmaster. Play should stress coordination of postal workers functions needed to get letter from a source to destination. 5) Children will write a friendly letter . Possible suggestions: thank you note to postmaster; invitation; personal; holiday card; get-well card. Children will write their addresses correctly on envelopes. Be sure to include return addresses. 6) See Film: "Day in the Life of a Mailman, Duke Thomas 7) See Film: "The Modern Post Office"	Film #27 Film #25 U. S. Post Office Local Mailman Orange boxes or baskets Letters Bags

EVALUATION PROCEDURE: Teacher will check written letter for correct format and proced . . The child will simulate a letter's trip from initial writing process to its destination. The child will explain the function of each worker in the letter's trip. He will then mail the letter that he has written and correctly addressed.

NAME OF UNIT People Behind the Scenes STRATEGY NUMBER 2 GRADE/SUBJECT K-3

Major Aim Truckers--Non-Food The importance of delivery men to our school Example: Film Carrier and Freight Carrier

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will recognize that films come to the school building from several sources through various delivery services. Example: BOCES film carrier. The child will trace the source of other supplies in his room and how they were delivered. Example: paper	There are lending libraries of films which supply our school throughout the year. Most school materials are delivered to the school by various trucking companies (Example: United Parcel)	1) Arrange with main office to meet BOCES Film Carrier as he arrives at school. Bring class out to see film truck. Talk with driver about route and delivery procedures and what his work day is like. 2) Class will order film for upcoming unit. 3) Each child will research a single classroom supply and how it reached the classroom. Interview truckmen whenever available. Use main office secretaries as resource people. 4) Make individual booklets with pictures and captions of all of the truckers that come to the building and their particular freight assignment. 5) Show BOCES film on Trucks in Our Neighborhood	Film order forms Film #29

EVALUATION PROCEDURE: Teacher will allow students to choose from among classroom materials and films. Thrown at random into a carton, and then the child will trace its trip to the school.

STRATEGY NUMBER 1

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K-3

Major Aim Piano Tuner: To understand the importance of the piano tuner's job in our school.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to describe the job of the piano tuner in terms of: training, workday, tools, job advantages and disadvantages, pay, etc.	A piano tuner's job requires specific skills and training. Each job has its inherent advantages and disadvantages	1) Interview and observe the piano tuner at work when he is at school. Suggested interview questions: a) How did you become interested in becoming a piano tuner? b) Why did you become a piano tuner? c) What training did you need? d) How long does it take to tune a piano? e) Do your ears get tired? f) Do you enjoy your job? What don't you like about your job? g) What tools do you use? h) What is your pay based on? (number of pianos tuned or hours worked) 2) Each child will write a story on one of two topics. a) Why I want to be a piano tuner. b) Why I don't want to be a piano tuner.	Piano Tuner Piano Information Nationwide Piano Technicians Guild, Inc. P. O. Box 813 Seattle, Wash 98111

EVALUATION PROCEDURE: Teacher will check above stories for content concerning job requirements, advantages, disadvantages, tool information and working conditions.

Truckers--Food and Non-Food

BOOKS

1. Alexander, Anne, ABC of Cars and Trucks, Doubleday, 1956
2. Arnold, Oren, Marvels of the U. S. Mail, Abelard Schumann, 1964
3. Beim, Jerrold, Country Mailman, Marrow, 1958
4. Colby, C. B, Trucks on the Highway, Coward McCann, 1964
5. Coombs, Charles I, Wheels, Wings and Water, World Book, 1963
6. Greene, Carla, I Want to Be a Truck Driver, Children's Press, 1958
7. Hastings, Evelyn, Let's Visit the Post Office, Belmont, 1967
8. Hoffman, Elaine, Community Life, Melmon, 1967
9. Jupo, Frank, Any Mail For Me, Dodd, 1964
10. Keats, Amy, A Letter to Amy, Harper & Row
11. Lent, Henry Bolles, Here Comes The Trucks, MacMillan, 1954
12. Lewis, Alfred, Behind the Scenes at the Post Office, Dodd Mead, 1965
13. McCall, Edith S, How We Get Our Mail, Benefic Press, 1961
14. Merrill, Jean, The Pushcart War, W. R. Scott, 1964
15. Miller, Lisa, Wheels, Coward McCann, 1965
16. Scheib, Ida, The First Book of Food, F. Watts, 1956
17. Seiden, Art, The Cub Book of Trucks, Lion Press 1966
18. Shannon, T, Food and Where It Comes From, Children's Press, 1961
19. Zim, Herbert Spencer, Trucks, N. Y. Morrow, 1970
20. Zoffo, George J. The Big Book of Real Trucks, Grosset and Dunlop, 1964

AV MATERIAL

21. SVE Picture Series, Moving Goods for People in the City, SP 130
22. BOCES film Story of Wholesale Market, C 11 min. 00036
23. Posters-Community Life Society for Visual Ed.- 8 pictures story on back
24. BOCES-Food for the City, C-12 min 00098
25. BOCES-The Modern Post Office, C 13 min. 00315
26. SVE Picture Sets "Postal Helpers"
27. BOCES Film Duke Thomas, Mailman C, 16 min C0010
28. SVE FS How We Get Our Foods, 4 FS on Mil, Bread, Fruits and Vegetables, Meat
29. BOCES-Trucks In Our Neighborhood C-12 min C00172
30. Tross Assoc. FS Community Helpers, Special Delivery-Story of Our Post Office

STRATEGY NUMBER 2

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K-3

Major Aim Piano Tuner: To show that sound is produced by vibrations

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will demonstrate that sound is produced by vibrating objects.	1) Sound is produced by vibrating. 2) Different instruments produce different sounds.	1) Experiment with tuning forks of various sizes and pitch to demonstrate vibrations. Strike fork on heel of shoe to cause vibrating. Children listen to vibrating fork for sound. When vibrating stops, the sound stops. Elicit from children these understandings: (through discussion) a) What causes sound? (b) Why did the sound stop? (c) Why do the forks have different sounds? 2) Invite older children and music teacher to show how vibrations on various instruments produce <u>different</u> sounds. 3) Children will experiment on various instruments to produce and make various sounds.	Balet, Jan <u>What Makes An Orchestra</u>, N. Z. Walck 1951 Huntington, Harriet <u>Tune Up</u>, Doubleday 1942 Smith, Peter <u>The First Book of the Orchestra</u> Franklin Watts 1962

EVALUATION PROCEDURE: Each child will produce sound using materials of his own choice; and explain how the sound was produced. Children may work as individuals or in groups for these demonstrations.

STRATEGY NUMBER 3

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K-3

Major Aim Piano Tuner: To show that different instruments produce different sounds

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to use homemade instruments to produce numerous and different sounds.	1) Different sounds are produced by different instruments. 2) Sounds produced by the instruments are affected by size, shape, thickness and material used in making the instrument.	The children make musical instruments to demonstrate changes in sound. 1) Connect various lengths and thicknesses of rubber bands, string or wire to a cigar box. Change size of string and rubber bands to produce different sounds. 2) Make simple drums. Use #10 cans from cafeteria or coffee cans. Remove both ends of cans, cut 2 circles 2" larger than can top from a tire tube. Punch holes with paper punch around rubber. Lace heavy rope through holes from top to bottom--criss cross, then tighten string for desired tone. 3) Make "hum-a-zoos" with a comb and tissue paper. Wrap comb with paper, place loose end with teeth on mouth and blow gently. 4) Fill 8 glasses or more with water at different levels to make a musical scale. Tap gently with spoon to play simple tunes. (Glasses of same thickness and size work best)	Cigar box or any strong box, rubber bands, wire or string. Coffee can, oat meal box or coffee can, tire inner tube, paper punch and rope Mandell, Muriel, Make Your Own Musical Instrument, Sterling, 1957 Comb Tissue paper

EVALUATION PROCEDURE: The children will plan and give a program for other classes using the musical instrument they have made in class.

STRATEGY NUMBER 4

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K-3

Major Aim Piano Tuner: To recognize that sounds come together to make music

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will relate music with pleasurable experiences	1) Music can bring us pleasure, beauty and relaxation. 2) There are different sections of the orchestra which produce different sounds which contribute to the whole musical piece.	1a) Each child brings in a musical record or tape which is a favorite of his, if he has one, and shares it with the group. The child can tell classmates why he enjoys this particular piece of music. Teacher may introduce records in musical areas not included in children's selections. 1b) Class listens to school musical presentation (school band, orchestra or chorus) Give opportunity to discuss why it was or wasn't personally enjoyable. 1c) Set up music corner in classroom with earphones, when available, so that children can have easy access to a record or tape collection of musical pieces in which children have indicated interest. Child can use music corner for moments of relaxation. 1d) Teacher will have a variety of rhythm instruments and ask each child to choose one to express an emotion. (Ex: drum could toll a sad feeling, bell could be a happy feeling) The rest of the group could guess the feeling as child performs. 2a) Invite instrumental music teacher to come with students who will demonstrate the sounds produced by the various instruments within the orchestra.	Records Earphones Cassette Record Player Rhythm Instruments BOCES Film: "Toot, Whistle, Plunk and Boom" color 10 mi

EVALUATION PROCEDURE:

STRATEGY NUMBER 4 (Continued)

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K-3

Major Aim Piano Tuner: To recognize that sounds come together to make music

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
		2b) See Film: "Toot, Whistle, Plunk and Boom" BOCES Film Catalog-an animated film tracing the origin of four basic types of musical instruments. 2c) Invite parents who are musicians to come in and demonstrate their skills and discuss their profession in terms of employment opportunities, working conditions and rewards of a musical career.	

EVALUATION PROCEDURE: Teacher will note how often music center is used by children for pleasure and relaxation and the increased (hopefully) sharing of favorite records with each other.

STRATEGY NUMBER 1

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K-3

Major Aim Sanitation Engineer: To make children aware of the necessity and importance of sanitation engineers

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
1) To have children recognize the need for garbage removal. 2) To have children list five activities of the garbage man-sanitation engineer. 3) The children will list the advantages and disadvantages of being a sanitation engineer.	1) Garbage removal is a health necessity. 2) A sanitation engineer performs various duties to get the garbage from place of disposal to its final destination. 3) Society places a social stigma on people involved in sanitation activities. However, work essential to society is good work.	1a) Have children make a list of all materials they have disposed of in one day (classroom, lunchroom, and home). Class discusses lists to find out quantity and variety of discarded materials. 1b) Children will visit the school garbage area when custodian is emptying small cans of garbage into the large bins. 1C) Children will see movie on Garbage. Class discussion will follow this movie. 2) The sanitation engineer will talk to the class to inform the children of his duties and his entire work day. 3) Class discussion on what you think and feel about the work of garbage removal. Why do you feel the way you do? How does it compare with your father's job? Attempt, in this discussion to bring out innate prejudices associated with this work.	Movie-Garbage BOCES Walt Disney Sanitation Engineer

EVALUATION PROCEDURE:

PIANO TUNER

BOOKS

1) Balet, Jan, What Makes An Orchestra, N. Z. Walck, 1951

2) Huntington, Harriet, E., Tune Up, Doubleday, 1942

3) Mandell, Muriel, Make Your Own Music Instruments, Sterling 1957

4) Smith, Peter, The First Book of the Orchestra, Franklin Watts, 1962

AUDIO-VISUAL

5) BOCES Film: "Toot, Whistle, Plunk and Boom" color 10 min.

STRATEGY NUMBER 2

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT K-3

Major Aim Sanitation Engineer--To make children aware of necessity and importance of sanitation engineers.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to recognize the need for a regular or daily garbage removal schedule.	Garbage must be removed on a regular schedule to insure community health and environmental beauty.	1a) Let garbage be accumulated over a few days in the classroom. Children will observe and discuss the consequences of this practice. 1b) Class will discuss the possibilities of a garbage strike and how it would affect the school and the community.	Transparency People Who Help Our Community--The Sanitation Worker-Charles W. Clarke, Co., Inc. Filmstrip: Our Public Utilities Ency. Britannica- Waste Disposal EB 9100

EVALUATION PROCEDURE: The children will make their own hand puppets to put on a puppet show for other classes. The puppet show will include these aspects: The need for garbage removal, activities in the work day of the sanitation engineer, function of the garbage dump, incinerator, land fill area and a recycling plant.

STRATEGY NUMBER 2

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K-3

Major Aim Sanitation Engineer--To make children aware of the necessity and importance of sanitation engineers.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to describe the function of the garbage dump, incinerator, land fill area and recycling plant.	Garbage is disposed and possibly reused in helpful ways. (Land fill, recycling, glass, etc)	Visit the town dump or local incinerator. Observe sanitation workers and process Visit recycling plant if available; observe process. Children recycle paper which has been collected during this unit. The recycling process for paper is (a) cut into strips (b) soaked in water overnight (c) make a frame screen about 8" x 10" (d) scoop out mushy stuff (paper pulp) onto screen. (e) Put on wire to drain (f) Heat iron and iron paper mush between sheets of newspaper (g) set on a counter to dry (h) Use paper to make booklet on recycling processes with pictures and captions drawn by children.	Town dump, incinerator, land fill area recycling plant Old paper, water, framed mesh screen (chicken wire and wood), sponges, iron Filmstrip: Educational Research Society Classroom Journeys A Trip to A Sewage Treatment Plant

EVALUATION PROCEDURE:

STRATEGY NUMBER 1

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT K - 3

Major Aim Maintenance-School Custodian -- The importance of maintenance men to school

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to list and describe the duties of the school custodian.	The school custodian performs a variety of duties to keep the school and its grounds in good condition.	1a) Children will individually or in small groups interview the custodian as he performs his chores. Attempt to have a child or group with him for the entire school day so that his day may then be reconstructed by class. Ask custodian to include the full spectrum of his activities from maintenance of school machinery, to snow removal, lawn cutting, school clean-up, traffic control, etc. 1b) Children will work together to put the custodian's daily activities together. Make a bulletin board of his activities using the individual's reports. (drawn or written) 1c) Have poster contest for school beautification posters will depict ways in which children may team up with custodian to keep surrounding beautiful.	Custodian Oaktag for posters Bulletin Bd. materials Rockland County Civil Service Booklet for Custodial Helper Job Description for School Custodian (District Publishers

EVALUATION PROCEDURE: Class will have a "Custodian Day" in which they will publicize via porters and displays and buttons and slogans the various duties of our school custodian.

SANITATION ENGINEER

AIIDIO-VISUAL

1. BOCES film Garbage B-11min 00217
2. FS-Charles W. Clarke Co., Inc. People Who Serve You - Your School
3. FS-Coronet Instructional Materials, Workers Who Provide Services S168
4. FS Educational Research Service Classroom Journeys--A Trip to a Sewage Plant
5. Transparency- Charles W. Clarke Co., Inc. People Who Help Our Community--The Sanitation Worker
6. FS-Encyclopedia Britannica-Our Public Utilities--Waste Disposal EB 9100

Air Conditioning

Check condition, alignment and tension of drive belts and adjust or replace them.

Check, adjust and lubricate motor and fan bearings.

Check, adjust and lubricate louvers, dampers and other mechanical controls.

Check size, number and cleanliness of filters.

Check operation of safety controls and adjust or report.

Check for and report unusual noises, vibrations or obvious malfunctioning.

Building shell (exterior)

None except as listed under carpentry, electrical, glazing and roofing.

Carpentry

Tighten or replace loose screws, bolts, nuts, etc.

Repair, adjust or replace hardware.

Check and repair shades, blinds and curtains, and restring venetian blinds if required.

Check and adjust or repair window frames, sashes, locks and operating mechanisms.

Check doors, trim if necessary, and adjust, repair or replace handles, locks, checks, etc.

Repair or replace loose floor and ceiling tile (except where major replacement is required).

Repair and lubricate lockers, folding bleachers and tables, other physical education equipment.

Fasten loose trim, counter tops, moldings, mop boards, sills, thresholds and stair treads.

Make minor repairs to wooden furniture.

Electrical (exterior)

Replace broken or burnt-out lamps in hard-to-reach places.

Check fixtures and mounting brackets for loose mounting bolts and wire connections, level or installation, and broken reflectors and glassware and tighten, adjust, repair or replace.

Check controls equipment for proper operation and report malfunctions.

Electrical (interior)

Check for oversized fuses and lamps, improper use or length of extension cords, use of wiring as support, and possible fire hazards, and correct.

Check for defective or worn convenience outlets, switches, breaks and plugs, and repair or replace.

Check lighting fixtures and repair.

Replace ballasts.

Replace burnt-out lamps in hard-to-reach places.

Check miscellaneous electric motors and clean and lubricate.

Check operation of fire alarm system and exit lights and repair.

Glazing

Replace hazardous broken window and door panes, mirrors, etc.

Replace damaged panes.

Grounds

Adjust, tighten and lubricate playground equipment.

Report hazardous conditions.

Heating

Check radiators, unvents and other room-heating equipment.

Repair leaks, clean and lubricate mechanical controls.

Adjust or replace drive belts.

Kitchen Equipment

Check, lubricate and adjust. Report malfunctions.

Plumbing

Unstop sinks, drains, toilets, urinals.

Adjust, repair or replace leaking faucets and valves. Secure loose fixtures and fittings.

Replace toilet seats, paper holders, and dispensers if required.

Refrigeration equipment

Clean and lubricate motors and fans.

Clean coils if necessary.

Adjust or replace drive belts.

Check for, report malfunctioning.

Roofing

Check, clean, adjust and lubricate roof-mounted mechanical or electrical equipment.

Adjust or replace drive belts.

Check roof drains, gutters and downspouts, and clean if necessary.

Report leaks or roof damage.

Ventilation equipment

Check condition, alignment and tension of drive belts and adjust or replace.

Check, adjust and lubricate motor and fan bearings.

Check operation of louvers, dampers and mechanical controls and adjust and lubricate.

Check size, number and cleanliness of filters.

Check for and report unusual noises, vibrations or obvious malfunctions.

Television, radio, public address, and audiovisual equipment

None

STRATEGY NUMBER 2

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT k - 3

Major Aim Maintenance, District-Wide Repairman (Window Repairer) To have children experience and observe the work of the glazier (preferably taught when glazier is present)

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to state the work and importance of the glazier to the school and describe some of the tools he uses.	The glazier performs an essential service for the school (keeps all glass in good condition using special skills and tools to do his job.	1a) Invite glazier to speak to class to describe his job, his work day and the tools he uses. He will demonstrate the way to use each of his tools. Class will ask glazier prearranged questions as: 1) What is your day like? 2) Where do you get the glass? Putty? 3) What training do you need to be a glazier? 4) What are some dangers you face in your work? 5) What is the most difficult aspect of your job? 6) What safety procedures to you use in your job? 1b) Glazier will help children to use his tools correctly and safely--glass chisel, suction tool, putty, cutter, etc. Children will observe how large pieces of glass are wrapped for protection, the gloves worn by the glazier; special glasses; special clothes for protection from small fragments.	International Brotherhood of Painters and Allied T ades, 1925 K St. N. W. Washington, D. C. 20006 Glazier: chisel hammer putty Truck with boom to reach higher places.

EVALUATION PROCEDURE:

STRATEGY NUMBER 2 (Continued)

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT Primary K-3

Major Aim Maintenance-District-Wide Repairman (Window Repairer) To have children experience and observe the work of the glazier.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
2) To recognize that different types of glass present advantages and disadvantages in care and installation.	2) There are different types and sizes of window panes each with their own advantages and disadvantages.	2a) Have discussion with children: You are buying a house. Should you have a large picture window or small panes? What are the advantages and disadvantages as far as replacement and expense are involved? 2b) Children look for pictures in various magazines to find different types of glass and windows. Children will make a class scrapbook with the pictures accompanied by appropriate captions. 2c) Children plan and take class trip to a glazier's workshop. Children will observe tools, equipment, glass storage, and workshop surroundings.	Magazines Workshop of Glazier

EVALUATION PROCEDURE: Children will plan, organize and draw a mural which depicts the glazier's tools, materials, working conditions, safety procedures, clothing and truck with boom. The finished mural will be shown and explained to other classes.

STRATEGY NUMBER 3

NAME OF UNIT People Behind the Scenes GRADE/SUBJECT K - 3

Major Aim Maintenance--Importance of district-wide repairmen to the school

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
1) The children will be able to identify the need for the services of district-wide repairmen such as the plumber, painter, roofer, heating specialist, electrician and carpenter.	1) The school custodian does not have the time or specialized training necessary to repair and maintain all the equipment in the school. Therefore, special repairmen are hired by the school district to do these jobs.	1a) List all equipment in classroom and bathroom children use. Then make a chart of who conditions or repairs it. Include walls (paintings, bathroom fixtures, etc.) 1b) When chart of special repairmen is complete, write in as many repairment who are in the building as possible, to discuss their work, tools, working condition, etc. 1c) Role play workers as they perform jobs. Child will tell class why he chooses job he does.	

EVALUATION PROCEDURE: Make a school helper's booklet with pictures of each special worker performing his job.

BOOKS

1. Rockland County Civil Service Booklets
2. Green, I Want To Be a Carpenter, Children's Press, 1959
3. Wilkinson, Jean and Ned, Come to Work With Us in House Construction, 1970

AUDIO-VISUAL

4. FS-Educational Readers Service Our School Workers

CAREER EDUCATION TEACHER'S GUIDE

Grades 1 - 3

BOOKS

Rockland County Career Education Program
Dr. Laurence Aronstein, Coordinator
Rockland County BOCES
West Nyack, New York 10994

PREFACE

This teacher's Guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize Career Education.

It is not our intention that these Guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each Guide is uniquely designed to emphasize how Career Education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing Career Education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the Guides.

Particular mention should be made of those teachers who originally developed the premise for this Guide.

R. Berlin - East Ramapo
J. Goldfarb - Pearl River
J. Malgieri - Clarkstown

INTRODUCTION

Books play an important role in every child's life. However, how many children consider the numbers of people who are involved in the production of a single book? In this mini-unit, it is our intention to bring these people out from between the covers. Using the books that the children touch each day, they can begin to develop an awareness of the world of work.

In the process of creating their own books the children will have an opportunity to experience a variety of book related jobs. This mini-unit may be infused into The Language Arts Curriculum.

We hope that after this unit has been completed, books will have an additional dimension for each child. We hope all students realize that books themselves are the final products of the total efforts of many people working together.

STRATEGY NUMBER 1

NAME OF UNIT Books GRADE/SUBJECT 1 - 3 Language Arts

MAJOR AIM To develop an awareness of the variety of books that exists.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will list and categorize many different types of books, (picture, fiction, non-fiction, biography, text, etc.)	Books come in a variety of forms and serve many purposes in our lives.	(1) Teacher and/or librarian and/or media specialist will show a variety of books to the children. Children will discuss and attempt to categorize the types of books. (2) Children will take a trip to the library, (public or school) to see the set-up and where the the different types of books can be found. Wherever applicable, the Dewey Decimal System may be introduced. (3) Teacher may be interested in obtaining and showing some of the following filmstrips: (a) How Can I Find Out? (b) Visit to the Library (c) How the Card Catalog Helps You. (d) Glad Book, Sad Book (e) Taking a Trip with a Book and/or any other films or filmstrips that can be found.	Let's Find Out About a Book Mildred L. Nickel F. Watts Co. 1971 Chosen films and/or film strips

EVALUATION PROCEDURE: The children will go to the library and find examples of at least three different types books, (eg. one picture book, one biography, one non-fiction, one fiction, etc.)

STRATEGY NUMBER 11

NAME OF UNIT Books GRADE/SUBJECT 1 - 3 Language Arts

MAJOR AIM To recognize that people do different jobs to produce books.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to identify and describe at least 5 jobs related to book production.	Many people doing different jobs go into the making of a book.	(1) Invite a resource person from a local publishing company or book store. (If neither is available the librarian may be used.) Discuss with children the different jobs which go into the publishing of a book, (eg. writer, illustrator, photographer, printer bookbinder, editor, salesperson.) (2) As an added activity, children may go to the library to find out more about the jobs which go into the publishing of a book. (3) Invite the parents, friends, or relatives who have a book publishing related job to speak to the children on the specifics of his/her job. Some questions to ask these people are: (a) What training do you need for the job? (b) Do you have to live in a special location for good job opportunities? (c) How many hours do you work each day? (d) Where do you work? home-artist office- (e) Do you enjoy the job? editor (f) Do you work alone or in a group? (g) How did you find your job? (h) Do you have time for hobbies? (i) How does your job affect your life style? (4) Have children write to authors and illustrators of favorite books to ask them about their work and lives. If authors and illustrators are local, invite them in to speak with the class about their work.	Chosen books

EVALUATION PROCEDURE: Each child will choose a favorite book and describe 5 people who were involved in its production. First graders may describe with pictures, second and third graders may use words to do this. Then use these pictures and word descriptions to create a bulletin board about books and their production.

STRATEGY NUMBER III

NAME OF UNIT Books GRADE/SUBJECT 1 - 3 Language Arts

MAJOR AIM To recognize that creative writing is an important skill in writing a book.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to write a story which will be used in their own books.	Creative writing is an important skill for successful authors.	(1) Each child will obtain one favorite book and share and discuss it with the class. Suggested line of discussion could be: (a) Why they liked it. (b) What the story was about. (c) Favorite character. (d) Author's aim. (e) Was it true. (2) Show children film "Let's Write a Story" (3) If possible, invite in a writer to speak to the children about creative writing. (4) Each student will write his or her own book. Working with a buddy, each student will edit his/her buddy's book for proper form and grammar.	BOCES film Let's Write a Story

EVALUATION PROCEDURE: Have children write a story with thoughts of it being illustrated and used in their own book. Teacher's checking of children's stories could and should be related to editing in the publishing field.

NAME OF UNIT Books STRATEGY NUMBER IV GRADE/SUBJECT 1 - 3 Language Arts

MAJOR AIM To recognize that illustration is an important skill in producing a book.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to illustrate with art work or photography their original stories for their books.	Illustrations and photographs play an important part in books.	(1) Teacher should bring in a variety of illustrated materials. eg. Where the Wild Things Are, by Maurice Sendak also: Brian Wildsmith's Books, Leo Lionni's books, Dr. Seuss' Books, Ezra Keat's Books, Beatrix Potter's Books, Charles Shultz's Books or any other which the teacher feels shows a good variety of illustrations and photographs. A discussion should follow as to which the children like, why they like them, does it add to the story, how do the colors make them feel, how were they made, why were they included in the story. (2) If possible, invite an artist or illustrator to talk to the children about their job. (3) A camera could be made available to the class. Also, a development kit might be made available.	Illustrations from chosen books Camera Development kit Photographs

EVALUATION PROCEDURE: Children will illustrate the story which they had written in the previous strategy. Teacher should have all sorts of art material available for the children. Also, the art teacher may be consulted for this project.

STRATEGY NUMBER V

NAME OF UNIT Books GRADE/SUBJECT 1 - 3 Language Arts

MAJOR AIM Children will produce their own books.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Children will complete their original books, utilizing their individual stories and illustrations.	Completion of a project is a necessary tool of learning.	(1) Children will investigate the format of an assortment of books the teacher has distributed around the room. Discussion will follow which will focus on components of book design as well as various methods of bookbinding observed. Need for cover, title page, table of contents, page numbers, will be noted. (2) The teacher will put together their original books using a variety of binding techniques appropriate to their age levels, (staple, tie together, or actually bind the books, depending on age level of the children.) Books will be displayed for other classes. Jobs related to books: Bookbinders, artists, illustrators, writers-authors, photographers, proof readers, editors, photo engravers, cameramen, strippers, typesetters, lithographers, printing pressmen-lithographic pressmen, plate makers, clerical employees, administrators, salesmen or women, advertising related jobs.	85

EVALUATION PROCEDURE: The teacher will check the books.

CAREER EDUCATION TEACHER'S GUIDE

Grades 3 - 5

CAN I BE A SCIENTIST?

Rockland County Career Education Program
Dr. Laurence Aronstein, Coordinator
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PREFACE

This teacher's Guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize Career Education.

It is not our intention that these Guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each Guide is uniquely designed to emphasize how Career Education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing Career Education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the Guides.

Particular mention should be made of those teachers who originally developed the premise for this Guide.

Sheila Abrams	-	East Ramapo
Kathleen Bristol	-	South Orangetown
D. Anne Nash	-	Nyack

INTRODUCTION

This Career Education Guide is designed primarily to serve as an introduction to the year's study of science, and focuses in on the work attitudes and skills that scientists need. During this unit (which is designed to take approximately two weeks), the students will examine the occupational role of a scientist; self-evaluate their interests and skills, and relate the results to those required for entry into the field; be introduced to, and carry out an experiment following, the scientific method; and be introduced to the concept of, and carry out an experiment following, the team research technique.

The unit culminates in a "Career Day" activity during which the children present biographical sketches of well-known scientists in order to further develop their understandings of the occupational roles found within the field of science.

STRATEGY NUMBER 1

NAME OF UNIT Can I Be a Scientist? GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To develop a better understanding of the role of a scientist

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student should be able to define the term "scientist".	A scientist's job may involve many different areas--but all scientists must: Observe carefully, ask questions and make experiments.	Prepare a ditto of the attached sheet, and pass them out to your class. These sheets may be: read individually, read together as a group, or read by the teacher - depending upon the reading abilities of your class. A short general discussion might follow this activity, seeing what your children know about scientists in general, or about any specific scientists with which they might be familiar. You could then begin a "mini-dictionary" which could be added to during this unit (or even kept throughout the year if the children are motivated in this area). This mini-dictionary can be done: individually, in small groups, or by the entire class as a class project. To initiate this activity, you might want to discuss the fact that the area of science has some specialized terminology. Then, depending on your approach (individual, small group, or large group), the term "scientist" will be looked up in a dictionary, and copied down. You might want to set up the dictionary in one of the following ways: -each child could have his/her own "mini-dictionary". with a page for each letter of the alphabet, and a handmade cover -the "mini-dictionary" could be done on chart paper, if it is to be a class project -If the numbers in your class make it feasible, each child could be responsible for all the words beginning with one (or more) letter(s). When finished, the pages could be assembled as a finished product -If you approach this project from small groups, each group could be responsible for a portion of the alphabet, and when finished, the pages could be assembled as a finished product. ***The term "scientist" is only the first term to be encountered during this unit. The children should be encouraged to add to the dictionaries whenever they meet an unfamiliar term.	

EVALUATION PROCEDURE: The children should participate in the discussion following the reading of the dittoed sheet. In addition, the children should be able to define the term "scientist" in their own words after completing the "mini-dictionary" activity.

What Does It Mean to Be a Scientist?

All through history, there have been scientists. Some of them lived long ago when man did not know much about science. They made their discoveries without tools, or instruments, or laboratories.

Many scientists are living today. They work in laboratories, in factories, in classrooms, in hospitals, and in the open country. Today, the scientists have excellent tools and many different kinds of instruments. They have books that tell all about the experiments and the discoveries of the scientists of the past.

Scientists of long ago, scientists of today, and you, who may be scientists in the year 2000, will be alike in the most important ways, although the methods of working may be very different.

If you are a scientist, you will:

1. Observe carefully -- you will see the world around you.
2. Ask questions -- you will ask, "Why is this true?"
3. Make experiments -- you will say, "What would happen if I did this? Or this?"

NAME OF UNIT Can I Be a Scientist? STRATEGY NUMBER 2 GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To become more aware of some of the work attitudes and skills needed to become a scientist

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student should be able to complete the "Can I Be a Scientist?" sheet The student should be able to write a paragraph telling whether or not he/she feels that his/her answers to the questions on this sheet indicate that he/she could consider a career in the field of science.	Certain skills are needed in order to successfuliy pursue a career in science.	Prepare a ditto of the attached sheets, and pass them out to your class. These sheets should be completed by the class on an individual basis. You may or may not wish to discuss these sheets before the class begins. It is, however, suggested that the sheets be discussed after the students have completed them (although it would probably be advisable not to discuss individual students' answers since they may be hesitant about revealing their self-evaluations). During this discussion, you may want to bring out the following points: --the patience that is usually associated with the carrying out of experiments --the fact that, depending upon your choice of occupational role within this career family, college may or may not be an essential part of your preparation --the basic frustrations of constant experimentation, balanced by the rewards of success in solving the problem Following the class discussion on the dittoed sheet, and the abilities needed, as well as certain attitudes (listed previously), you may wish to direct the class to write a paragraph in which they would indicate their perceptions as to whether or not their answers have indicated the ability to pursue a career in the field of science. You may or may not wish to bring up the topic of motivation - the children could approach this activity either from the objective approach (simply looking at their abilities and attitudes), or from the subjective approach (looking not only at their abilities and attitudes, but also the level of interest that they feel for this area).	Dittoed sheets "Can I Be a Scientist?"

EVALUATION PROCEDURE: The students should have completed the dittoed sheet to the best of their ability (considering the level of self-awareness of their abilities at this level). Also, the students should have written a paragraph (consistent with their writing ability at this level), discussing their answers to the questions, and whether these indicate a possibility of pursuing a career in the field of science.

Can I Be A Scientist?

"Can I Be a Scientist?" This is a question you may be asking now. Of course, no one can tell you for sure, but there are some questions you can answer which may help you to know whether or not you can think seriously about being a scientist.

I Choose the best answer.

1. A scientist
   a. does not ask questions
   b. is very curious
   c. believes everything he reads

2. A scientist
   a. never learns new things
   b. stops learning when he finishes school
   c. is always learning

3. A scientist <u>usually</u> works
   a. with a team
   b. very little
   c. alone

4. To work within the scientific experimentation field you <u>must</u>
   a. have a college degree
   b. have special training
   c. be a good speller

II Underline the answer you choose.

1. If you do not know the answer to a question, would you rather
   a. have someone tell you the answer?
   b. find the answer yourself?

2. When you are told something is true, do you
   a. usually accept it as being true?
   b. usually question it?

3. When you want to know "why" something happens, do you
   a. usually ask someone to tell you?
   b. usually experiment on your own?

4. Do you enjoy reading
   a. only stories about make-believe situations?
   b. also about real people and things?

5. When you find a job hard to do, do you usually
   a. rush through to get it done?
   b. work slowly and carefully?

NAME OF UNIT Can i Be a Scientist? STRATEGY NUMBER 3 GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To become more aware of some of the work attitudes and skills needed to become a scientist

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student should be able to complete at least two of the four activities listed, which are designed to give them some experience in the activities of a scientist and the attitudes and skills needed.	Certain skills and attitudes are needed in order to successfully pursue a career in science.	You may wish to introduce this activity with a discussion concerning the attitudes and abilities already brought forth as needed in the field of science. The following are points which you may wish to bring out: 1. The starting point in any science is observation. 2. In all fields of science, there is a need to have a collection of objects, or pictures, or specimens. This does not mean a lot of things put into a box or piled on a shelf. A collection for a scientist must be (a) organized in a good way, (b) labeled neatly, telling where it was found and when, or telling what it is. (c) kept clean and free from dust in a box, or covered with plastic or in a scrapbook. 3. All scientists must be able to express themselves accurately in writing. What a scientist sees or learns, he must be able to write clearly so that others may learn about it or so that he can refer to his notes months or years later. 4. All workers in science need to have their own libraries. ACTIVITIES: Following this discussion, you may wish to assign the following projects. (A suggestion would be to give the children their choice of doing, for example, two out of the four.) The numbers on the projects correspond to the numbers of the topics for discussion which were listed above. 1. Learn to observe carefully. Test yourself on these questions; -Without counting, how many windows are in your classroom? -What color is the hall in your school? -What color are your teacher's eyes? -Can you think of other questions which would require careful observation? 2. Make a collection. You might want to collect different leaves, or rocks, etc. Make sure you follow the guidelines for a scientific collection (listed above in Item 3).	Materials brought in by the students, such as: rocks, leaves, flowers old magazines old newspapers

EVALUATION PROCEDURE: The students should actively participate in the class discussion. The student should be able to complete at least two of the activities (or other number set by you). Their work on these activities should meet the requirements set down above as to organization, accuracy of the information gathered, etc.

NAME OF UNIT Can I Be a Scientist? STRATEGY NUMBER 3 (continued) GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To become more aware of some of the work attitudes and skills needed to become a scientist.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
		3. Learn to write observations carefuliy. Choose a flower. Make notes about it. What color is it? How tall? How many petals? What shape? What kind of soil was it growing in? On what date did you find it? (You can practice this kind of writing with trees, clouds, birds, tools, and many other things.). 4. Build a library. If you do not have books, you can cut articles from newspapers and magazines and mount them in a scrapbook.	

EVALUATION PROCEDURE:

NAME OF UNIT Can I Be a Scientist? STRATEGY NUMBER 4 GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To acquaint the students with The Scientific Method.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student should be able to describe the scientific method in his own words, including the five steps followed.	When confronted with a problem to solve, scientists follow a general method of trying to find the solution.	Using brainstorming (or teacher-guided discussion), The Scientific Method should be examined by the class. These are the steps: 1. Decide what the problem really is. 2. Make your best guess as to the answer or solution. 3. Get all the information you can find on the subject. 4. Study the information you have gathered and draw a conclusion from it. 5. Test your conclusion to see if it really works. Once these steps have been brought out (and it may be helpful to list them on the board, or on oaktag, or on an overhead projector), you may wish to bring out the following attitudes or approaches, which coincide with the scientific method: 1. Scientists do not jump to hasty conclusions. They hunt for facts and do not make up their minds too soon. 2. Scientists listen to points of view of other people. They know that other people have ideas, too. 3. Scientists believe that it is important to know the truth. 4. Scientists believe that there is a cause for everything that happens. 5. Scientists share their knowledge with others. 6. Scientists are open-minded, willing to accept new truth as it is discovered.	Board, or Oaktag, or Overhead Projector

EVALUATION PROCEDURE: At the end of this activity (or possibly the next day, as a review), the students could be asked to describe the scientific method--either orally, or in written form. It is expected that most (and hopefully, all) students will be able to do this accurately.

NAME OF UNIT Can I Be a Scientist? STRATEGY NUMBER 5 GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To become more familiar with The Scientific Method by carrying out an experiment.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student should be able to carry out an experiment following the steps outlined in the previous strategy regarding The scientific method. Optional Objective: The student should be able to complete a work sheet designed to show how their experiment followed the steps of the scientific method.	Scientists follow a general method in trying to find a solution to a problem	You may or may not feel it necessary to review The scientific method before beginning this activity (see Strategy #6). Then, this experiment could be done in any of the following ways: --as a teacher demonstration --as a student demonstration --with the children working independently in small groups --with the children working individually The directions for the experiment could be: --discussed orally --written on the board or chart paper --written on dittoes, passed out to the children PROBLEM: How can you make a magnet? Experiment: 1. Spread some tacks on the table---Do tacks tend to stick together? 2. Touch several tacks with nail...Do tacks stick to the nail? 3. Hold nail in one hand, bar magnet in the other. Stroke magnet, with nail, starting in the middle of the magnet and moving toward the end. Repeat many times (50 or more times). 4. Touch several tacks with nail. Are the tacks now attracted to the nail? Information for Teachers: Observations: There is no magnetic pull amongst the tacks or between the tacks and nail--until the nail becomes magnetized by stroking against the magnet. Conclusion: When magnetic material such as iron or steel is stroked on a magnet, the material becomes a magnet itself. It has become magnetized.	Bar magnet(s) iron tacks nail(s) Optional: Work sheet on the scientific method

EVALUATION PROCEDURE: The evaluation of this activity should focus on whether or not the student was able to carry out the experiment - following the scientific method. If you have included the work sheet as a part of the activity, the answers on this work sheet would serve as an evaluative tool.

NAME OF UNIT Can I Be a Scientist? STRATEGY NUMBER 5 GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To become more familiar with The Scientific Method by carrying out an experiment.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student should be able to carry out an experiment following the steps outlined in the previous strategy regarding The scientific method. Optional Objective: The student should be able to complete a work sheet designed to show how their experiment followed the steps of the scientific method.	Scientists follow a general method in trying to find a solution to a problem	You may or may not feel it necessary to review The scientific method before beginning this activity (see Strategy #6). Then, this experiment could be done in any of the following ways: --as a teacher demonstration --as a student demonstration --with the children working independently in small groups --with the children working individually The directions for the experiment could be: --discussed orally --written on the board or chart paper --written on dittoes, passed out to the children PROBLEM: How can you make a magnet? Experiment: 1. Spread some tacks on the table---Do tacks tend to stick together? 2. Touch several tacks with nail...Do tacks stick to the nail? 3. Hold nail in one hand, bar magnet in the other. Stroke magnet, with nail, starting in the middle of the magnet and moving toward the end. Repeat many times (50 or more times). 4. Touch several tacks with nail. Are the tacks now attracted to the nail? Information for Teachers: Observations: There is no magnetic pull amongst the tacks or between the tacks and nail--until the nail becomes magnetized by stroking against the magnet. Conclusion: When magnetic material such as iron or steel is stroked on a magnet, the material becomes a magnet itself. It has become magnetized.	Bar magnet(s) iron tacks nail(s) Optional: Work sheet on the scientific method

EVALUATION PROCEDURE: The evaluation of this activity should focus on whether or not the student was able to carry out the experiment - following the scientific method. If you have included the work sheet as a part of the activity, the answers on this work sheet would serve as an evaluative tool.

STRATEGY NUMBER 5 Continued

NAME OF UNIT Can I Be A Scientist? GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To become more familiar with The Scientific Method by carrying out an experiment.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
		Note: When the material that has been magnetized is of hard steel, it will hold its magnetism for long periods of time and become a "permanent" magnet. Soft iron will only act like a magnet while it is under the force of another magnet or magnetic lines of force produced by an electric current, etc. You may wish to have the children fill out an information sheet related to their experimentation and The Scientific Method. An example of such a sheet is attached.	

98

EVALUATION PROCEDURE:

THE SCIENTIFIC METHOD - MAGNET EXPERIMENT

1. What was the problem you were trying to solve?

2. Before you began the experiment, did you make a guess as to how to solve the problem? If so, what was your guess?

3. Did you use any sources to find out about magnets before you began your experiment?

4. What conclusion(s) did you draw from your research?

5. Did your experimentation help confirm your conclusion(s)?

STRATEGY NUMBER 6

NAME OF UNIT Can I Be a Scientist? GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To acquaint the students with the fact that scientific research often depends upon teamwork, and that all those involved in that "team" do not necessarily need to be college educated.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
1. The student should be able to list the three levels of occupational roles within the field of science. 2. The student should be able to describe the general objectives of the following occupational roles: Theoretical Scientist Experimental Scientist Technician 3. The student should be able to take part in a team research project, by role playing one of the occupational roles listed above.	A great majority of scientific research is carried out on a teamwork basis in which Theoretical Scientists and Experimental Scientists are joined by Technicians in order to solve a problem.	The first part of this strategy will involve a class discussion, which should be followed by the team research project. Much of the information that should come out during the class discussion will probably have to be provided by the teacher, unless you wish to make a ditto and pass out information sheets prior to the discussion. You may wish to begin the class discussion by asking the following questions: --Do all scientists do the same things? --Do all scientists work in laboratories? The students' responses to these questions would enable the teacher to introduce the following information: There are three basic levels of occupational roles within the field of scientific experimentation. There are: (1) Theoretical Scientist--he explores ideas, raises questions, expresses theories. (2) Experimental Scientist--he does the lab work, sets up experiments, tests ideas. (3) Technician--he measures, observes, keeps data on the experiments. **Please include the following educational background: The Theoretical and the Experimental Scientists usually have a college education (+), whereas the Technician usually does not have a college education, but does have some specialized training. Following this discussion, the class should be divided into four groups: Biologists, Chemists, Physicists, and Technicians. It might be further explained that biologists deal with the study of live, chemists with the characteristics and combinations of elements, physicists with matter and energy and technicians with recording and reporting information (data). Once the groups have been established, the following team research project could be carried out.	Materials needed: --6 pots (paper cups will work just as well) --18 seeds (such as lima or radishes) --small amounts of fertilizer, epsom salt, baking powder, ammonia

EVALUATION PROCEDURE: The evaluation for this strategy would include the following: (1) the ability of the student to list and accurately describe the three levels of occupational roles within the field of scientific experimentation (could be done either orally or in written form), (2) the extent to which the student is able to carry out his/her role in the team research project, and (3) the extent to which the student is able to participate in the follow-up class discussion arriving at conclusions concerning the class project.

NAME OF UNIT Can I Be a Scientist? STRATEGY NUMBER 6 Continued GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To acquaint the students with the fact that scientific research often depends upon teamwork, and that all those involved in that "team" do not necessarily need to be college educated.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
		Team Research Project Question: What happens to the growth of plants when certain conditions are changed? Biologists: Plant 18 seeds of any kind (fast growing) in 6 pots of coarse sand, and label the pots #1,2,3, 4,5, and 6. Chemists: Obtain 3 quart jars of tap water. Pots 1,4 water and add liquid fertilizer; pots 2,5 water and add 1 tsp. epsom salts, 1 tsp. baking powder, and 1 tsp. ammonia; pots 3,6 water only. **Each day, the pots should be watered according to the directions listed above. Physicists: Prepare a place for growing the plants, providing different types and amounts of light. (Pots 1, 2, 3 should be left in sunlight, as your "control" group.) Technicians: Keep an accurate account of the progress in growth of the plants - measuring them and recording the data. It is suggested that a class discussion be organized after the plants have had a chance to grow. This discussion should focus on the varying degrees of success with growing plants, given the different circumstances under which the experimentation allowed them to grow. The effects of fertilizing vs. non-fertilizing, natural sunlight vs. artificial indoor lighting vs. total darkness, etc. should be brought out.	

EVALUATION PROCEDURE: See page 11.

STRATEGY NUMBER 7

NAME OF UNIT Can I Be a Scientist? GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To become better acquainted with the careers of some of the well-known scientists; through this exercise, the students should become more aware of the backgrounds needed for the different occupational roles.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student should be able to participate in "Career Day," by presenting (either individually or in a group) a report on a well-known scientist. This report should include some information on the background (education and/or specialized training) of that scientist.	Depending on the area of concentration within the field of scientific research, different backgrounds (education, training, etc.) are required.	As a culminating activity for this unit, you may wish to organize a "Career Day" in which the children could participate. The children could work individually or in groups, and select a scientist that interests them. They would then research this scientist, and present a report, giving information concerning the educational background, major accomplishments, working conditions, etc. of the scientist of their choice. These presentations could take the form of: 1. Oral presentations--with or without visual aids such as pictures, examples of the scientist's work (e.g. if the scientist were Galileo, a primitive telescope could be put together by the student(s). 2. Taped presentations--with or without visual aids (particularly applicable for shy students, who have a contribution to make, but may be reluctant to get up in front of a group). 3. Play presentation--this could take the form of dramatizing the scientist's moment of discovery, or, perhaps, an average day in the life of that scientist. 4. A mock interview--in this choice, the students could present a dramatization of a talk show or news show interview with the scientist of their choice. (They might also be encouraged to dress like the scientist - depending upon when he/she lived.) You may wish to consider allowing the children to present their "reports" in an assembly-type format, inviting other classes, the entire school, and/or perhaps parents as well. ***Attached is a partial listing of scientists which may help your students to make their choices. It is also suggested that the choices for the manner of presentation be listed somewhere so the children can consult that listing.	A teacher-prepared listing of possible choices for the scientist to be studie (see attached sheet). A teacher-prepared listing of possible choices for the method of presentation of the report (see #1-4). Library books, encyclopedias, textbooks

EVALUATION PROCEDURE: The evaluation of this activity would be based upon the material presented by the children on the various scientists. You may wish to have the children hand in a rough draft of their presentations, so that you will be abl to check it for accuracy. It also should be remembered that, since becoming aware of the backgrounds needed by the different scientists is the major aim of this strategy, the children's reports should include this information.

Galileo

Nicolaus Copernicus

Michael Faraday

Charles Drew

Louis Agassiz

Conrad Lorenz

Niels Bohr

Robert Goddard

Isaac Newton

Luigi Galvani

Louis Leakey

Marie and Pierre Curie

Albert Einstein

Alessandro Volta

James Chadwick

Dimitri Mendeleyev

Gregor Mendel

CAREER EDUCATION TEACHER'S GUIDE

Grades 3 - 5

CAREERS IN EARTH SCIENCE

Rockland County Career Education Program
Dr. Laurence Aronstein, Coordinator
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West Nyack, New York 10994

PREFACE

This teacher's Guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize Career Education.

It is not our intention that these Guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each Guide is uniquely designed to emphasize how Career Education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing Career Education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the Guides.

Particular mention should be made of those teachers who originally developed the premise for this Guide.

Sheila Abrams - East Ramapo
Kathleen Bristol - South Orangetown
D. Anne Nash - Nyack

INTRODUCTION

This Career Education Guide is designed to be used in conjunction with existing units, such as Rocks & Minerals and will require approximately two weeks. The primary purpose of this guide is to acquaint the students with some of the careers associated with the Earth Science field. This objective is accomplished by providing opportunities for the students to participate in an archeological dig and fossil-making activities---performing the occupational roles of the scientists and technicians connected with these scientific fields. Another purpose of this guide is to have the students become aware of the fact that organized, cooperative teamwork is essential to the success of most undertakings in this field.

If field trips are available to you, you may wish to plan a class trip to the Museum of Natural History, since these would serve as a perfect culminating activity for this guide.

STRATEGY NUMBER 1

NAME OF UNIT Careers in Earth Science GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To familiarize the students with the occupational roles of archaeologists, geologists, and paleontologists.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students should be able to describe the occupational roles of: an archaeologist a geologist a paleontologist	We have learned about the past through the work of archaeologists, geologists, and paleontologists.	This activity is primarily designed as a class discussion or brainstorming session (although a certain amount of the necessary information may have to be supplied by the teacher). You may wish to begin by asking the following questions: 1. How long do you think man has been on the earth? (man, as we know him, dates back 40,000 years; men-like creatures date back up to 2 million yrs.) 2. How do we know this? (reading books, etc.). 3. How did the people who wrote the books know? (through the work of archaeologists, geologists, and paleontologists). This should lead into a question concerning the occupational roles of these scientists. You may wish to view the film listed under "Resource" at this point. You may also wish to have the students, either individually, or in groups, look up a description of these occupational roles; or, you may wish to provide the information yourself (see attached sheet). If the research was done by the students, you may wish to have them report their findings to the class; or, you may wish to have them submit their findings to you in written form for evaluation.	Film: Archaeologists at Wor (13 min. C) BOCES film library Books: Archaeologists and What They Do, Braidwood, Robert J. Encyclopedia of Science

EVALUATION PROCEDURE: The evaluation for this strategy will be based on the accuracy of the information given by the students, either orally or in written form.

TEACHER INFORMATION

Archaeology The science of the study of the remains of prehistoric people.

Archaeologists dig in the ruins of ancient cities or in the lands where people lived long ago. They try to find things that will tell us how people lived in the days before written history began.

Geology The branch of science that deals with the earth.

Geologists work with rocks and minerals.

Paleontologists study, identify and date fossils.

STRATEGY NUMBER 2

NAME OF UNIT Careers In Earth Science GRADE/SUBJECT Science, Grades 3-5

MAJOR AIM To examine the career of "Louis Leakey," a famous paleontologist

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student should be able to summarize the major accomplishments of Louis Leakey, and recognize the personal characteristics which enabled him to be successful in his occupational role.	Louis Leakey's personal characteristics enabled him to carry out his life's work as a paleontologist.	This activity is primarily design d to help students recognize the relationships of his interest, attitude, aptitudes, etc. to the realization of his career goals, by examining attributes of Louis Leakey. Teacher introduces the name of "Louis Leakey" (you could begin by reading poem, see attached), then ask, "Can you guess what Louis Leakey's occupation was?" If the term paleontologist doesn't evolve, students could use encyclopedias or go to library to learn about his life and work. This could be done as an individual or as a group activity. After information has been gathered, a group discussion should follow--elicit a discussion of personality and characteristics, etc. See attached sheet for information. You may also wish to include in this activity, the viewing of the film "Dr. Leakey and the Dawn of Man," and fossil transparencies.	Film: "Dr. Leakey and the Dawn of Man" (Teacher source) Fossil Transparancies (Milliken Publishing Co.--also available from E. Ram. Book Depository) Book: The Early Days of Man, by Roy E.C. Burell

EVALUATION PROCEDURE: The student should be evaluated by his participation in the group discussions, and/or activities. He should be able to associate Dr. Leakey's name with the term "paleontology".

CAN YOU DIG IT?

Louis Leakey - what a man!
Spent many years digging in dirt and sand.
He traveled here, he traveled there--
Trying to discover exactly where,
Early man had lived.

He and his helpers worked for many years,
Exploring jungles in Africa without any fears
Then one happy day they found skulls and bones of apes and men!
They did not only learn where man first lived--they also found out "when"!

By: D. Anne Nash
Nyack School District

TEACHER RESOURCE OUTLINE

Louis Seymour Bazett Leakey (1903-1972) British archaeologist, paleontologist and anthropologist

Spent most of his life in pursuit of evidence of early man

Born: Kikuyu village of Kabete, near Nairobi, Kenya, August 7, 1903, son of British missionaries. Grew up with Kikuyu youths. Received PhD. degree from Cambridge University England.

Died: London, England, October 1, 1972

1924: Took part in British Museum archaeological expedition to Tanganyika (now Tanzania). He became convinced that man's origins were to be found in Africa, not Asia where scientists were concentrating since the discovery of Peking and Java man there. Continued leading expeditions to East Africa 'til 1931.

1931: Leakey explored the Olduval Gorge, where he discovered fossil remains of many kinds of extinct animal life, including some early forerunners of man. He remained there, with his wife and helpers, until in 1959, his expedition found remains of a skull of a human-like creature estimated to have lived some 1,750,000 years ago. This preman was called Zinjanthropus.

Later discoveries included the remains of Homo-habilis, an early tool making man, and Kenyapithecus, a link between the ape and man.

1967: Leakey concluded that the family of man is nearly 20 million years old, and that means evolution went along with other related species, but many other scientists do not agree with this theory and there has been much controversy.

His wife, Mary, and his son, Richard, accompanied him in expeditions and are continuing the work he felt was unfinished. Mary found the first skull (Zinjanthropus) and Richard has since found a skull and bones that may be 2.6 million years old. It was found near Lake Rudolf, Kenya, and is the oldest human fossil known. He also recently found boy's footprint (lower paleolithic era) preserved in ancient lacustrine silts (500,000 years old).

During World War II, Louis Leakey worked for British military intelligence, and from 1945 to 1961, was the chief curator of Nairobi's Coryndon Memorial Museum. His works include Adam's Ancestors (1934), Olduvai Gorge, 1951, 1965, and a grammer of the Kikuyu language.

The Americana Annual, 1973
Americana Corp. U.S.A.

NAME OF UNIT Careers in Earth Science STRATEGY NUMBER 3 GRADE/SUBJECT ~~Science~~ Grade 3-5

MAJOR AIM To have the children gain a better understanding of the work of a paleontologist.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students shall be able to describe 3 ways in which fossils were formed, as is part of the work of a paleontologist.	By studying fossils and other evidence of the history of the earth's surface, scientists have learned much about what has happened in the past.	The day previous to this activity, the teacher may ask the students to bring in any rocks containing fossils that they can find. After examining the fossils, the teacher may ask the group to discuss and give their ideas on how these fossils came to be. Most of the fossils will be imprints, of shells, leaves, and some may be casts. Teacher Info: Sometimes a plant or animal fell into sediment, mud or dirt, covered by more sediment and its remains dissolved leaving only its shape behind as an imprint in the sediment, which over thousands of years hardens into rock. Casts: Found by splitting rocks, happened when a single footprint was left in mud, and flood water covered it up with layers of sediment which hardened into rock leaving raised cast print. The teacher may ask (1) if anyone has ever heard of the La Brea Tar Pits in Los Angeles, Cal. This is where some animals fell into tar pits, swamps or quicksand which later hardened, bones and teeth preserved. (2) Has anyone ever heard of amber? Amber is a yellow resin that is the sticky sap from trees, which often trapped unsuspecting animals and kept them as perfectly preserved specimens as 100 million years ago. These types of fossils are called imbedded fossils. The teacher will suggest that the students will make these types of fossils on the following day. Have them bring in at least two items of hard, simple shapes such as sea shells, plastic animals and a small empty paper jewelry box and/or small aluminum or paper plate. The teacher should have the materials described in the following 1-3 activities. She would find it easier if she did only one type of fossil-making activity at a time. She may wish to divide the class into groups to make each fossil type together. (Do not do all 3 types at once. Each type requires about 20 min. The cast method can be difficult. As a final review, you may wish to emphasize the fact that fossils are records of prehistoric life.	Book: Andrews, Roy C, In the Days of the Dinosours, Random House, N. Y. 1959 (Library) Open Highways, 5, p. 188, Scott Foresman & Co. Transparancies: East Ram. Cent. S. [Book depository on Archaeology and Fossils, Milliker. Publishing Co. St. Louis, Missour

EVALUATION PROCEDURE: The evaluation will be based upon the accuracy of the students' descriptions of the 3 ways in which fossils were formed. (This may be done either orally or in written form)

STRATEGY NUMBER 4

NAME OF UNIT Careers in Earth Science GRADE/SUBJECT Science 3-5

MAJOR AIM To have the student make an imitation fossil as a replica of those found by paleontologists.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student shall be able to construct an artificial fossil, using one of the three techniques that a paleontologist would use.	By studying fossils and other evidence of the history of the earth's surface paleontologists have taught us much about what has happened in the past.	The teacher may wish to ask the class about the work of scientists who work with fossils and find out if they recall the different types of fossils, as a brief review. She may then ask the class to show their "pretend artifacts" and decide which types of fossils they would want to make. Arrange teams, if desired, and if possible, go outdoors to make the fossils, (easier to clean up, less odor.)	See materials listed under suggested activity.

(1) Problem: To make fossil imprint.
Materials: Plaster of Paris, some vaseline or oil, a small basin for mixing, small paper plates and empty jewelry boxes to use as mold form, and objects brought in for imprints (Students should bring in at least 2 items, such as sea shells, plastic animals, or any hard, simple shapes.)
Procedure: Rub a light coat of vaseline or oil around the inside edges and bottom of mold. Pour a cupful of plaster of Paris into basin, add a little water, stir, continue slowly adding water and stirring until consistency of sour cream. Pour into mold form, wait a few minutes until plaster begins to harden. Put object carefully into plaster, pushing down only up to its widest part. Let object set in plaster (about 10 minutes) and carefully pull it out.
Teacher information: (Observation) The shape of the fossil imprint is left in the plaster.
(Conclusion) We made an imitation of a fossil imprint.

(2) Problem: Making a fossil cast. (A more difficult process)
Materials: Same as problem #1
Procedure: You can use your imprint fossil, or make a new one as described in Problem #1. Cover the entire surface with a thin coat of vaseline or oil, including the hollow in the surface, (too much can cause the cast to lose sharpness, too little can cause cast to break.)
Prepare a cupful of plaster of Paris, pour into oiled plaster imprint, then let dry for an hour or more. When dry lift off carefully.
Teacher information: (Observation) On the underside is a cast of the fossil imprint.
(Conclusion) We have made an imitation of a fossil cast.

(3) Problem: Imbedding fossils
Materials: Method #1 - Dead small, pretty colored insects, colorless nail polish, jar cover
Method #2 - Clear cast (or any kind of plastic mold material,) catalyst for clear cast, small rectangular mold, (can be paper jewelry box) insect or plant. Procedure: Method #1 Place insect on a hard surface like a jar cover. Drop a small amount of clear nail polish on it. Let dry a few minutes. Apply more coats until well covered.
Method #2-Follow directions on can imbedding insect at half way level. Teacher information: (Observation) Left in plaster is an artificially imbedded fossil. (Conclusion) We made an imitation of an imbedded fossil as it can be found in amber.
As a follow up teacher may wish to point out how these fossils could keep a record of what happened on earth today.

EVALUATION PROCEDURE: Should focus around whether the students carefully followed the directions for preparing their artificial fossils.

STRATEGY NUMBER 5

NAME OF UNIT Careers in Earth Science GRADE/SUBJECT Science 3-5

MAJOR AIM To become familiar with the occupational roles of the following: surveyor, archaeologist, draftsman, geologist, photographer, and paleontologist.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
(1) The students should be able to list the occupational roles which compose an archeological dig team (2) Student should be able to define the following occupational roles: surveyor, archeologist, draftsman, geologist, photographer, and paleontologist.	When an archeological dig is organized, a team needs to be formed which includes the following: surveyor, archeologist, draftsman, geologist, photographer, and paleontologist.	Now that the students have become familiar with fossils and their importance as a key to our past (see strategy #3 and 4) this would be an ideal point at which to introduce the fact that most of these (and other artifacts) are found at an archeological dig site. Once this idea has been established, you may wish to continue a class discussion for the purpose of determining the different occupational roles of the "team" which is assembled for an archeological dig. (See attached sheet of teacher information of occupational roles) You may wish to use one of the following techniques in order to have the students arrive at definitions of the aforementioned roles: (1) Class discussion-with teacher guidance and input. (2) Student research individually, or in small groups. Once the definitions have been arrived at, they should be written down either on the board, on chart paper, or in the students' notebooks. After all the definitions have been established, archeological "teams" should be formed. It is suggested that the class be divided into teams (4 or 5 teams-depending on class size) and that each member choose (or be assigned) a different role: surveyor, archeologist, draftsman, geologist, photographer, and paleontologist. (If the numbers don't work out, you could double up on one or more of these roles.) You may wish to spend a few minutes with each "team," making sure each student understands his/her role. The final step would be to ask for the following equipment to be brought in to school the next day for the dig: newspapers, shovels or spades, sieves, old toothbrushes (for fine work), large cardboard boxes, stringed tags, and if the area is muddy, boots. (Every item listed is needed for each team.) (2) After site has been chosen, the students should map the area and mark off a section for each team to work in, using the equipment for each occupational role. (Each team area should be marked off with string.) (It would be useful to have the sections spaced far enough apart to allow teams to work free of interference.) Once the areas have been staked, the photographer will take pictures of each site.	Materials needed for th archeological dig under Suggested Activit Camera(s) ideally one for each team Film

EVALUATION PROCEDURE: The evaluation of this strategy would be determined by whether or not the students can list and define the occupational roles as enumerated above. This could be done during a class discussion, or when talking with the separate teams, or on an individual basis, either orally, or in written form.

TEACHER INFORMATION

Surveyor: Measures and stakes out dig site.

Draftsman: Prepares clear, complete, and accurate drawings of the dig site. In addition, the draftsman marks on the drawing of the site the exact location of each artifact found.

Photographer: Keeps a photographic history of the dig. This should include "before" and "after" pictures, pictures of "important finds," plus a few "candid shots" of the work.

Archeologist, geologist and paleontologist: descriptions given in Strategy #1

STRATEGY NUMBER 6

NAME OF UNIT Careers in Earth Science GRADE/SUBJECT Science, 3-5

MAJOR AIM To familiarize the student with the occupational role of the surveyor, photographer, and draftsman, and the tools they use while participating in an archaeological dig.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student should be able to perform the duties of a person in the occupational role of his choice: surveyor, photographer, or draftsman.	The surveyor, photographer, and draftsman must all participate in, and cooperate, in order for an archaeological dig to be successful.	The aim of this activity is to allow the students to utilize skills in the areas of art and math, and to better understand the importance of cooperative team work, especially in relation to an archaeological dig. (1) This activity should begin with the students choosing a site. You could have them justify reasons for their choice of the particular site, (eg. level ground, dense-not dense, signs of human life once being there, such as abandoned shack, farm, etc.)	See strategy #5

EVALUATION PROCEDURE: The students justification of choice of site, (orally or in writing,) and accuracy in mapping and staking of the chosen site, will serve as an evaluation procedure.

STRATEGY NUMBER 7

NAME OF UNIT Careers in Earth Science GRADE/SUBJECT Science 3-5

MAJOR AIM An archaeological dig with students fulfilling the required occupational roles.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students should be able to participate in a simulated archaeological dig.	In order to succesfully carry out an archeolgical dig, a team of scientists needs to be assembled, and a cooperative effort must be made.	The dig: (Time 50-90 minutes) The teacher may first wish to review the purpose of the dig (to simulate the work of earth scientists and relate finding to local past by a quick discussion;) make sure that each student knows his team, his dig area, his specific job and its responsibilities, and has equipment with him before beginning. Stress team cooperation. Procedure: Lay out newspapers to collect items. Dig only 6" to 12" deep across area at a time. First layer: Photographer photographs activities. All dig, surveyors make sure that groups stay within sites. Carefully remove and clean off each item found, archaeologist labels accurately for location and layer. Geologist examines site for stones, paleontologist specializes in fossil finding, draftsman may draw location of each find on map. Upon completion of each layer, place in box, separate with newspaper, (archaeologist's job.) Teacher information: Actually once the dig begins, all the students are anxious to dig in and find their share of treasure. Transport artifacts back to classroom. Photograph site now. Clean up area.	See materials strategy #5

EVALUATION PROCEDURE: No formal evaluation is necessary. The teacher should however, be aware of whether or not the individual students fulfill the requirements of their occupational roles. In addition, the importance of team work should be emphasized, and be clearly apparent within the teams.

STRATEGY NUMBER 8

NAME OF UNIT Careers in Earth Science GRADE/SUBJECT Science, 3-5

MAJOR AIM To follow up the archaeological dig in such a way as to relate it to the careers of the earth scientist, and pertinence of such digs to past history.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students should be able to summarize their findings as a result of the archaeological dig, and report these findings to the class as a whole.	Once the work on an archaeological dig is completed, the scientists must be able to work as a team in order to summarize their findings and prepare an accurate report.	Follow up to archaeological dig: Suggestions you may wish to use. (1) The teacher suggests that each team takes its box of artifacts (treasures) to an assigned area of the room. Each team spreads out its findings on newspaper, grouping by layers, and examines their finds. Each team reports its findings to the class, either orally, or written, showing each item, surmising how it was used, and age it was. Teacher information: For upper grades teacher may mention that scientists can actually date items by using radioactive C-14 or "amino acids" and a student may wish to research this. (2) The teacher may ask the class as a whole to devise a theory about what was found and how it relates to the history of the area. Local historians, or persons living in the area might be invited to verify findings, or add to your knowledge. Such an interview might be video-taped. (3) The group may wish to discuss the joy of finding artifacts, the frustrations of not finding anything on their allotted site. (Do bring up the fact again, that L. Leakey spent 28 years digging on his gorge without a significant find to back up his theory.) Also encourage the discussion to bring out how well working as a team brought success. (4) As a culminating activity you may wish to have the photographer photograph the displays and have the class set up a museum-like display (in media center, etc.) for rest of school to examine. This involves descriptive cards as well as theories.	Finkelstein Memorial Library - Human Resource file. Local Historians, or persons. Rockland Historical Society "South of the Mountain" (publication)

EVALUATION PROCEDURE: The evaluation of this activity would be determined by the feasibility of the teams' theories as to previous use of the area involved, as well as the accuracy of, and understanding shown through their report.

CAREER EDUCATION TEACHER'S GUIDE

Grades 4
Social Studies

LIFE AND WORK IN EARLY AMERICA

Rockland County Career Education Program
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Rockland County BOCES
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PREFACE

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Particular mention should be made of those teachers who originally developed the premise for this Guide.

Evelyn Cohen-Nanuet
Loretta DeBerardinis-Nyack
Eileen Goldblatt-Ramapo
Gertrude Itkin-Ramapo
Mary-Ethel Kearney-Clarkstown
Nickolas Kelepis-Nanuet
Vincent Mahon-East Ramapo
Earl Mullen-Haverstraw-Stony Point
Donna Schwartz-East Ramapo

Acknowledgment should also be given to those teachers who rewrote and reinterpreted those Guides into the present form presented here.

Gertrude Itkin-Ramapo
Judith Lewin-East Ramapo
Anne Nash-Nyack

NAME OF UNIT Life and Work in Early America STRATEGY NUMBER 1 GRADE/SUBJECT 4th Grade--Social Studies

Major Aim To develop an appreciation of human adaptation to a changed environment.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students will be able to develop a time line depicting the general changes in life style from 1607 to the present in the form of a collage during the course of the whole unit.	There were progressive changes in life style in our country since its early beginnings.	Label 3 large sheets of octag or 3 large bulletin boards: Life in the New World 1607-1700, Life in Colonial U. S. 1700-1800, Life in United States Today Have children contribute pictures, articles, original reports for a collage in each area on a contributing basis throughout the unit.	# Refer to bibliography Send to Plimoth Plantation, Inc.,Box 162 Plymouth, Mass. 02362 fc inexpensive materials on Life in Plymouth Colony, colorphotos,etc. Send for teachers' free copy of Pioneer Life in America (SA-2880), reprint from World Book Encyclopedia (Field Enterprises Ed. Corp., Merchandise Mart Plaza, Chicago, Ill 60654

EVALUATION PROCEDURE: The placement of contributions by each student on the correct bulletin board and the quality of the contributions will be a means of evaluating the childrens' grasp of the concept.

NAME OF UNIT Life and Work in Early America STRATEGY NUMBER 2 GRADE/SUBJECT 4th Grade Social Studies

Major Aim To develop an appreciation of human adaptation to a changed environment.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to identify the various reasons the early settlers had for coming to the new world	People came to the new land for many reasons: a) Economic--Hope for free land; over-population b) Political-escape tyranny c) Religious-Freedom to worship in their own way d) Social--to escape dead end of class structure.	Divide class into four groups according to the four general reasons for emigration, i.e., economic, political, religious, social. After viewing filmstrips and reading background materials, have each group compose a letter to the owner of the ship leaving for the new world to explain why they feel the need to go. Have them describe their occupations and family life in Europe. The group letter voted best by the class should be posted and the winning group placed in charge of the time line collage collections.	# Refer to Bibliography See bibliography for: Film: Why the New World was Explored Books #1, 2, 4

EVALUATION PROCEDURE: Check letters for meaningful statements

NAME OF UNIT Life and Work in Early America STRATEGY NUMBER 3

GRADE/SUBJECT 4th Grade Social Studies

Major Aim To create an awareness of the interdependence among all individuals in the home and community

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to identify the positive and negative aspects of individual cooperation in a community effort.	1) Early settlers had to cooperate to survive in an alien land. 2) The Jamestown Colony in 1607 broke down for lack of cooperation and organization. 3) The Plymouth Colony was successful because of communal effort	1) Observe filmstrips of each colony and discuss elements of interdependence in each. 2) Have children list former occupations of settlers of Jamestown and each choose one of those occupations as his own background. As new settlers, have them write how they could have contributed their talents to the community effort. 3) Announce a class project--making "Jonnycake" as the settlers did. Specify what part each student will play in preparation. Offer to bring the cornmeal. On day of project, announce that you were too busy to bring the cornmeal. Discuss feelings about noncooperation, etc. After the class appears to understand how one person's carelessness can cause project to fail, produce cornmeal and continue project.	1) Books #3 for background Filmstrip for: Jamestown #48 Plymoutn #49, 50

EVALUATION PROCEDURE: Elect a committee to observe cooperative efforts in regular classroom activities on a continuing basis and have class discuss the positive and negative aspects of each breakdown in class cooperation.

STRATEGY NUMBER 4

NAME OF UNIT Life and Work in Early America GRADE/SUBJECT 4th Grade Social Studies

Major Aim To establish that courage, self-reliance and resourcefulness were qualities of most of the Pioneer men, women and children

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to identify courage, self-reliance and resourcefulness in the settlers' approach to living.	1)The men and boys had to build their own homes and furnishings and often fashion tools. 2) Women and girls had to prepare foods with alien ingredients, make and mend clothes, weave cloth, make soap and candles, teach children. 3) Children relied on their own imagination for games and sports	1) Construct pioneer house from available materials. Fine detail could include furniture, grease-paper windows and natural clay work. This and the following activities could be culmination of class trip to Philipsburg Manor or the museum of the City of New York 2) Have children weave 4 x 4 square of cloth, make a sampler, make candles or soap and make a hornbook. 3) Discover recipes for foods available at the time. Try them at home and bring results to school. 4) Have colonial play period. Children use only equipment available in colonial period.	Book #13 for description of home building Book #4 for recipe for succotash Books #8A, 11, 14, 17, 19 for details of coping with life For class trip see: Rockland Regional Cente Extending the Classroom Books #8 for games Physical Education Teacher Music Teacher, Parents Simulated Game: Discovery Available from social studies school service

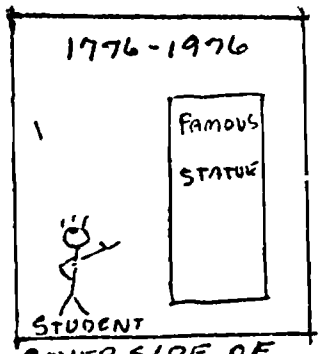
EVALUATION PROCEDURE: Have children identify those students who showed resourcefulness in finding appropriate materials for projects and self-reliance and courage in their use. List the names on the board and discuss how the things they did related to what was done in colonial days.

NAME OF UNIT Life and Work in Early America STRATEGY NUMBER 5 GRADE/SUBJECT 4th Grade Social Studies

Major Aim To establish the nature of the careers of the majority of settlers in the colonies

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to compare the occupational life style of the ordinary worker today with that of the colonials in relation to specialization.	1) The ordinary worker today most likely works at a specialized job and relies on others for his needs. 2) The colonial common man had to supply most of his own needs.	Take a poll of the kinds of activities parents of all students in class are engaged in A) during working hours B) to satisfy family requirements of food, clothing, shelter, recreation, and transportation. e.g. What part does mother play in producing clothing? Father in producing food and shelter? Show Film: If You Lived Then	Parents Film available from BOCES Film library

EVALUATION PROCEDURE: Establish two sections of blackboard. Have children take turns listing common activities of a colonial's day on one board and activities of an ordinary person today on the other.



COVER SIDE OF SCREEN

SCREEN DEPICTING MULTIFACETED CAREERS OF THE FOUNDING FATHERS TO BE CONSTRUCTED FOR STRATEGY 6 AND MAYBE KEPT FOR BICENTENNIAL CELEBRATION.

SQUARES MARKED A ARE RESERVED FOR COLLECTED PICTURES OF A COLONIAL PURSUING THE APPROPRIATE CAREER, D FOR A MODERN COUNTERPART, C AND D FOR STUDENT-WRITTEN PARAGRAPHS CONCERNING SAME.

POCKETS ARE FOR PROFESSIONAL MATERIALS ON CAREERS

GEORGE WASHINGTON
PICTURE
MILITARY OFFICER
PICT. A
PARAGRAPH B
MILITARY (MODERN)
PICT C
PAR. D
SURVEYOR
SURVEYOR (MODERN)
PICT
PAR
FARMER
FARMER (MODERN)
PIC
PAR
POCKET
HOW TO BECOME...

THOMAS JEFFERSON
PICTURE
LAWYER
A
B
C
D
WRITER
ARCHITECT
INTERIOR DECORATOR
INVENTOR
CABINETMAKER
HOW TO BECOME...
POCKET

BENJAMIN FRANKLIN
PICTURE
PRINTER
A
B
C
D
INVENTOR
JOURNALIST
TOWN-PLANNER
AMBASSADOR
HOW TO BECOME...
POCKET

PAUL REVERE
PICTURE
SILVERSMITH
A
B
C
D
JEWELER
ARTIST
POCKET

ALEXANDER HAMILTON
PICTURE
BANKER
A
B
C
D
MERCHANT
SECRETARY
LAWYER
SOLDIER
WRITER
POCKET

MASKING TAPE APPLIED VERTICALLY BACK AND FRONT

NAME OF UNIT Life and Work in Early America STRATEGY NUMBER 6 GRADE/SUBJECT 4th Grade Social Studies

Major Aim To demonstrate that various careers followed by the Founding Fathers still exist, but in forms which are adapted to modern conditions.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
1) The student should be able to list many ways in which 5 of the Founding Fathers earned a living during a lifetime. 2) They should be able to describe special careers in colonial times and their modern counterparts. 3) They should be able to identify the ways in which education played a role in each case.	Colonial leaders were extremely versatile Colonial careers still exist in forms adapted to modern times.	1) Develop a screen of octag depicting the multi-faceted careers of the Founding Fathers. Have the children contribute paragraphs describing those careers as they discover them through resources. Post pictures of colonial activities in juxtaposition to descriptive paragraphs. Place pictures of modern activities to the right of similar colonial occupations. At the base of each screen panel, place a pocket for job descriptions collected from companies or copied from Occupational Outlook Handbook 2) Obtain permission from local professionals and workers occupied in careers similar to those of the Founding Fathers. Have child armed with school supplied instamatic and tape recorder and interview them at work. This could be done as after school activity accompanied by teacher or volunteer parent. Pictures and tape can be utilized in conjunction with screen activity.	Parent volunteers and professionals. For assistance in planning, see: Career Education Activities Through World of Work Resources (available through BOCE Career Education office Field trip guide, R.C. Learning Center Local Media consultant Obtain duplicate Nat'l Geographics for cutting magazine sections of newspapers. See Biographies #28-46 See: Norton, Joseph L., On The Job, available from BOCES Career Ed. Center Work Today: #25, 26, 27

EVALUATION PROCEDURE: Evaluation of the results of the screen construction and contributions at the end of the unit.

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Life and Occupations in Colonial Times

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Foods

'Early Days'

20 Hays, Wilma P. and Vernon, Foods the Indians Gave Us, Ives, Washburn, McKay, 1973

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'Today'

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Occupations Today

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33 Graves, Charles P., Benjamin Franklin, Man of Ideas, Garrard Press, 1960

34 Merriam, Eve, Story of Ben Franklin, Four Winds, 1965

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43 Coy, Harold, The Real Book About George Washington, Franklin Watts, 1952

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53 Cooking in Colonial Days, see #51

54 Plantation Life in Colonial Virginia, See #51

55 The Planter Statesmen of Colonial Virginia, see #51

CAREER EDUCATION TEACHER'S GUIDE

Grades 4 - 5 Social Studies

EXPLORERS--AN INTRODUCTION

Rockland County Career Education Program
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PREFACE

This teacher's Guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize Career Education.

It is not our intention that these Guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each Guide is uniquely designed to emphasize how Career Education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing Career Education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the Guides.

Particular mention should be made of those teachers who originally developed the premise for this Guide.

Nicholas Kelepis	Nanuet
Gertrude Itkin	East Ramapo

EXPLORERS--AN INTRODUCTION

This guide is intended as an introduction to the study of the lives of the early explorers. The activities suggested are planned to lead the pupils into discovery of their own potential as explorers in the larger sense and of the consequences of such activity upon themselves, upon their immediate community, and upon society as a whole.

As suggested in the latter strategies, the teacher can relate this material to the explorers and inventors studied throughout the school year in grades four and five.

The material is intended to be flexible and easily adapted to the interests and needs of the pupils in your class. Activities and resources may benefit from deletions or additions to suit those needs. Care should be taken that emphasis remain on career awareness, self-awareness, decision making skills and attitudes toward the world of work.

STRATEGY NUMBER 1

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To compare the motivations of the explorers of early America with those of present day pupils

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to identify his own need to explore his environment.	I People explore because they are curious about their environment. II Some people are curious but are trained not to explore.	I--Brainstorming: A. Ask pupils to think back to things they did before they were of school age, what did they explore on their own (1) in the home (2) on the street (3) in the neighborhood. B. Elicit variety of responses and list on blackboard. C. Discuss what motivated them to do this exploration. II--Introduce a closed but attractive box of interesting material into the classroom without comment. Leave it there until time for discussion. Have class respond to "who looked into box?" "What did they see?" "Why did some people not look into box?"	Select film or part of motion picture showing child exploring environment. Home movies might be useful and short enough. Found materials

EVALUATION PROCEDURE: Have children list ten ways in which he has explored his environment in his lifetime out of simple curiosity.

Blindfold children and introduce mystery box into which each child must feel for items to identify. Only those wishing to do so will participate. The others must explain why they did not.

STRATEGY NUMBER 2

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To compare the motivations of the explorers of early America with those of present day pupils

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Children should be able to identify reasons for obtaining material things.	People explore because they need something or are greedy for more.	Set up a task for a group or a single child whereby a class need is fulfilled by the groups exploration and the group is further led to acquire excess fulfillment of need through greed. For example, send group for colored construction paper with specific number of sheets in mind. Leave it up to them to formulate plan of action. Set up with other teachers and art department so that exact requirements can be obtained in one place but much in excess can be found elsewhere. Discussion in class of actions taken and reasons for actions.	Other teachers and school personnel

EVALUATION PROCEDURE: Children list reasons why the group in the above activity obtained or did not obtain the materials sent for.

STRATEGY NUMBER 3

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To compare the motivations of the explorers of early America with those of present day pupils

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Children will be able to list many occupations which require a love of adventure.	People explore because they love adventure.	Make up questions for a quiz show. Have each child role plan an occupation. For example, parachutist, mountain climber, airplane pilot, etc. Quiz master ask each one questions leading to their confessions of love of adventure. On blackboard or on two charts show (a) pre-Columbian map of the world (b) global map in relation to the moon. Discuss with children how many would explore the nothingness around the early known world and why or why not; how many would choose to go to the moon to explore today. Elicit from students and list on board possible careers which aid exploration for those who would not venture. (Maps could also be made by children) Devise an obstacle course which children follow blindfolded. Use an empty room or playground. Have children go through the course one at a time under supervision. Sit in circle afterward and discuss feelings and emotions in reference to the experience. Recall the examples of the men in Ponce de Leon's party hacking their way through an unknown jungle or Columbus' men landing on an unknown shore with strange people awaiting them, etc.	See Chapter I, Great Names in American History by Eibling, King, Harlow, Laidlow, 1965 for early maps Also: Encyclopedias See diagram suggested as sampie

EVALUATION PROCEDURE: Have each child name the occupations required for a specific explorers adventure using references.

STRATEGY NUMBER 4

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To compare the motivations of the explorers of early America with those of present day pupils

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Pupils will be able to discriminate between and identify positive and the negative aspects of influencing others.	Some people explore to teach others their religion and customs.	Have a distinctly foreign person come into the classroom for the day, eat lunch with the children using his native table manners and using his own tongue, etc. When he or she has gone, ask the children to discuss whether or not that person's customs need improvement and if so, what would they do to improve said customs. Show slides or films of foreign lands where natives are healed by witch doctors or eat squatting on the ground or otherwise show "uncivilized" behavior. Diagram a behavior chart of comparative customs and discuss relative merits on basis of the requirements of the individual societies.	Exchange program Films, filmstrips on aborigines, etc.

EVALUATION PROCEDURE: Pupils will search out materials on Spanish and French missions and itemize the things they did that helped the natives and those that were harmful to the original culture.

STRATEGY NUMBER 5

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To compare the motivations of the explorers of early America with those of present day pupils

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Pupils should be able to select specific instances in the American background where one explorer's discovery led to many more.	One explorer's discovery leads to further exploration.	1. Plant around the room, hidden from sight, some incentives such as paper covered candies. As soon as one is discovered, have children leave room for some other activity. Upon return, observe behavior of pupils in searching out the remainder of rewards. Discuss thought processes of each person who continued search. 2. Coordinate research work with school librarian. Divide class into small groups. Each group selects one explorer to be studied in grade 4. Pupils are given specific questions to answer. What did he explore? Who did he come after? How was his exploration dependent on a prior discovery? etc. 3. Children draw picture stories. Base these on the adventures of the early explorers. Discuss phrase "One picture is worth a thousand words."	Library

EVALUATION PROCEDURE: Encourage children to be a 'guest speaker' after doing research on an explorer. They could either pretend to be the explorer and tell about themselves or simply answer the question he answered in his research. Teacher will observe pupil's responses.

NAME OF UNIT Explorers--An Introduction STRATEGY NUMBER 5 GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To compare the motivations of the explorers of early America with those of present day pupils

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Pupils would be able to identify competition as a strong motivating factor in early exploration.	Competition is an important factor in motivating exploration.	Treasure hunt: Divide class into groups of 4-6 members. Bring class out to playground. Hide written clues in match boxes (6-10 messages) which have been distributed in an area of the playground. Treasure chest is buried in playground and contains chocolate covered coins. Group following clues correctly finds the Treasure Chest and keeps the treasure.	Materials brought in by pupils

EVALUATION PROCEDURE: Using treasure hunt as the basis of discussion, elicit from pupils idea that competitive feeling increases as one approaches the achievement of the goal.

STRATEGY NUMBER 6

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To compare the motivations of the explorers of early America with those of present day pupils

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Pupils would be able to identify competition for material reward as a strong motivating factor in early exploration.	People compete for material things	Competition game: Divide class into three even teams. Bring class onto playground. Pupils each get one balloon and blow it up. At a given signal three pupils at one time run to bench and sit on their balloons and break them. Then they run back and touch the hand of their own team members who repeat this process. The team who completes the task first is the winner and receives candy, baseball cards, or other material reward. Discuss implications when back in the classroom and cite examples of competitive behavior in the history of exploration	

EVALUATION PROCEDURE: Role play: Children choose the same team all the time making the teams uneven. Through discussion elicit from the pupils the need for rules and fair play and how people normally try to "stack the deck" in their own favor when competing.

STRATEGY NUMBER 7

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To compare the motivations of the explorers of early America with those of present day pupils

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Pupils will be able to document their own worth on a competitive basis.	People compete to further their self-image.	Have pupils imagine they are planning to go on a voyage of discovery but need financing. Have them write a convincing proposal that would encourage a company or a friend to sponsor the voyage. Include the following questions: a. How would you obtain the people necessary for your trip? b. How many people would you need? c. What jobs would they fill? d. What supplies would you need? e. What method of transportation would you use? Why? f. Where would your voyage take you? g. Why would you go? h. What would your sponsor gain by paying for your voyage?	

EVALUATION PROCEDURE: Pupils read their proposals to the entire class. Pupils will vote after each proposal is read (the reader having left the room). Child with most votes and most convincing proposal is the winner.

STRATEGY NUMBER 8

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To compare the motivations of the explorers of early America with those of present day pupils

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Pupils will be able to enumerate specific ways in which the immediate or world community recognized the explorers.	People compete for community approval and recognition.	Each pupil selects one of the explorers they will study in the grade and, using reference materials from the library, finds out what recognition, approval and rewards that explorer received from his country and the world as a result of his exploration.	School Library Media Center

EVALUATION PROCEDURE: Develop a bulletin board with the pupils using their independent research work which pinpoints the rewards and recognition each explorer earned.

STRATEGY NUMBER 9

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To compare the motivations of the explorers of early America with those of present day pupils

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to demonstrate that competitiveness increases as status is advanced.	People compete to advance personal status.	1. Have pupils design a poster or an advertisement that might have been used in the time of the explorers to urge men to sign on for a voyage of exploration around Africa to India and the Spice Islands. 2. Simulate a voyage of exploration or discovery with class as the crew (e.g. Explore a new planet). Name the ship. What are the needs of the crew? What will we call the new planet? Who will be the leader? What are the attributes of a leader? How is a leader chosen? What are the responsibilities of a leader? How long should he serve?	

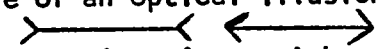
EVALUATION PROCEDURE: 1. Invite other members of the grade level to see posters and ads. Have them select three best posters and send information back on the winners.

2. Have a pupil role play the part of a television reporter on board ship and using tape recorder, report back to "Eyewitness News" detailing the feelings of the crew, their roles on the ship, jobs they accomplish, rewards they hope to achieve and problems encountered on board.

STRATEGY NUMBER 10

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To identify the circumstances that existed which motivated the discovery and exploration of America

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Pupils will be able to report on what was known about the world at the time of Columbus and how this motivated exploration.	Most people before Columbus' time believed the world was flat.	Make a world map on a flat paper, showing world as people in Columbus' time viewed it. Make another map on same size paper as it is today. Bend each map so that left and right edges meet to form a tube. Compare two tube maps. Illustrate why Columbus believed he could reach the East Indies by sailing west. Draw on blackboard an example of an optical illusion such as two similar lines  with arrows pointing in opposite directions. Ask class, without measuring, which line is the longest. Show approval of majority vote. Have minority prove their contention if they will. Show flatness of water with carpenter's level. Demonstrate why world seemed flat.	Old maps in encyclopedias and duplicated map of exploration in appendix of this unit. e.g. Major voyages of discovery. New Book of Knowledge. Any good elementary psychology book showing optical illusions.

EVALUATION PROCEDURE: Using texts and encyclopedias, have pupils write a list of known facts and ideas upon which Columbus based his theory of exploration.

STRATEGY NUMBER 11

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To identify the circumstances that existed which motivated the discovery and exploration of America

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Pupils will be able to demonstrate that food can be preserved by spices and other means than refrigeration.	Food preservation was a problem because of lack of refrigeration.	Try to arrange a trip to Philipsburg Manor in Tarrytown, New York. If school does not underwrite field trip expenses approach Parent-Teacher Club or other local organizations for financial backing. Children may be able to produce crafts to sell, or run rummage or cake sale. At Philipsburg Manor ways of preserving food in the seventeenth and eighteenth centuries is demonstrated. Exhibition: Have children list spices used in their homes. Have pupils learn which spices are used in cooking different foods. They can bring in spices. Label and exhibit them with legend of use. Invite other grades to visit.	Administration, Parent-teacher clubs, pupils. Philipsburg Manor, Tarrytown, New York (contact for latest rules and regulations)

EVALUATION PROCEDURE: Divide children into small groups charging them with responsibility to demonstrate with one experiment each how food that spoils can be preserved without refrigeration. e.g. apple that is cut can be preserved with lemon juice.

STRATEGY NUMBER 12

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To identify the circumstances that existed which motivated the discovery and exploration of America

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Children will infer from their own dramatization that countries competed for the wealth of new areas.	Countries were competing for trade as a source of wealth in the 15th and 16th centuries.	The increase in commercial and business activities made it possible for merchants to acquire great wealth. "They sought additional profits by investing in overseas expeditions." (New Book of Knowledge) Dramatize this sequence by having pupils role play. The outcome should be a three act play for possible exhibition to rest of school or grade level. Act I--merchants with goods from Far East sell to customers in Europe, telling them why they are so costly (scarcity, hardships of travel, loss of ships, etc.) Act II--same merchants, now wealthy, meet together to discuss ways and means of accumulating more profits. Discuss competition with other countries for trade, etc. Act III--navigators and explorers sell merchants on the idea of investing in voyages to open new markets for further enrichment.	Use bibliography to discover which countries competed for new markets and which explorers obtained backing of wealthy merchants, etc.

EVALUATION PROCEDURE: Discussion of drama to elicit inferences pertaining to the competition of countries for new markets and new routes to old markets.

STRATEGY NUMBER 13

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To identify the circumstances that existed which motivated the discovery and exploration of America

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Pupils will be able to identify the need for freedom of religion as a motivating force toward exploration and settlement of the new world.	In some countries there was no freedom of religion.	Have pupils read background of Pilgrims and Puritans to understand lack of religious freedom in England. Puppet show: Puppets should represent various religious groups in England that were unhappy with the restrictions upon their religious activities. Have pupils divide into groups after listing on board the names of the religious sects of the time. Each group will represent one sect making simple puppets and role playing the confrontations with governing forces. (e.g. Puritans, Pilgrims, Quakers)	Books on puppet making to be found in libraries.

EVALUATION PROCEDURE: Group discussion after puppet presentations. List on blackboard specific dissatisfactions with government policies toward religious groups and ways in which the government dealt with these groups.

STRATEGY NUMBER 14

NAME OF UNIT Explorers--An Introduction GRADE/SUBJECT 4-5 Social Studies

MAJOR AIM To compare the motivations of the explorers of early America with those of present day pupils

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children demonstrate that inventions and discoveries accelerate the accomplishment of tasks such as exploration.	Inventions and discoveries such as compass, printing press, rudder and sextant stimulated explorers to venture	Experiments: Have pupils compete on assigned tasks, e.g., one pupil with compass reaches a designated goal in competition with one without; pupils make small sailing ship models, one with rudder, one without, and compete for designated goal in a flat pan of water; one pupil with rubber stamp with three line message on it competes with an other pupil writing same message ten times against time. Trips: arrange a trip to local newspaper or printing press (e.g. Our Town, tel. No. 735-7070, contact Mr. Arthur Aldrich. Human Resources: Parents of children in class who work in areas that utilize these inventions who are willing to asnwer questions of class.	A. Models borrowed from district. B. Local newspapers C. Parents of pupils in class

EVALUATION PROCEDURE: After observing results of said experiments and the uses of inventions through trips and resources people, have pupils list ten ways in which tasks were accelerated as a result of these discoveries.

Bibliography of Books, Filmstrips, Films, Transparancies, Games, Newspaper Articles

Books

The following is a broad list of suggested readings that may be available in your own school or public library. They vary from third to sixth grade reading level. By using the card catalog in your own library adequate substitutions may be found for titles not listed there.

1. American Heritage Discoverers of the New World by Josef Berger, American Heritage, 1960

2. d'Aulaire, Ingri and Parin Columbus, Doubleday, 1955

3. Leif the Lucky, Doubleday, 1941

4. Baker, N. B., Amerigo Vespucci, Knopf, 1956

5. Henry Hudson, Knopf, 1958

6. Juan Ponce deLeon, Knopf, 1957

7. Bebenroth, C. M., Merriwether Lewis: Boy Explorer, Bobbs, 1953, (Childhood of Famous Americans)

8. Blassingame, Wyatt, The First Book of American Expansion, Watts, 1965

9. A World Explorer: Ponce de Leon, Garrard, 1965

10. Buehr, Walter, The Spanish Conquistadores in North America, Putnam, 1962

11. Westward with American Explorers, Putnam, 1963, (Daniel Boone, Lewis & Clark, Zeb Pike, Charles Fremont, and others)

12. Carmer, Carl, Henry Hudson: Captain of Icebound Seas, Garrard, 1960

13. Coffman, R. R., and Goodman, N. G., Famous Explorers for Young People, Dodd 1945

14. Dalgleish, Alice, America Begins, Scribner, 1955

15. The Columbus Story, Scribner, 1955 (his boyhood and first voyage)

16. Daugherty, James, Daniel Boone, Viking, 1939

17. Duvoisin, R. A., And There Was America, Knopf, 1938

18. They Put Out to Sea, Knopf, 1943, (early map making and hardships of sea exploration)

19. Epstein, Sam and Beryl, The First Book of Maps and Globes, Franklin Watts,1959

20. Folsom, Franklin, Famous Pioneers, Harvey, 1963

21. Graham, A. P. LaSalle: River Explorer, Abingdon, 1954 (makers of America)

22. Groh, Lynn, Ferdinand Magellan, Garrard, 1963 (World Explorer Books)

23. Grosseck, Joyce and Attwood, Elizabeth Great Explorers, Fideler, 1961

24. Haines, Madge and Morrill, Leslie, Lewis and Clark: Explorers to the West, Abingdon, 1959.

25. Judson, Clara (Ingram) Christopher Columbus, Follett 1960

26. Kaufman, Mervyn D., Christopher Columbus, Garrard 1963 (early motivations and challenge to King and Queen of Spain)

27. Kjelgaard, James Explorations of Pére Marquette by Land, Random House 1951, (Landmark Books)

28. Knight, Frank Stories of Famous Explorers by Land, Westminster 1965 (summaries of journeys)

29. Stories of Famous Explorers by Sea, Westminster 1964 (summaries of journeys)

30. Knoop, Faith Yingling Francisco Coronado, Garrard 1967 (traveling through territory where no white man had been)

31. Latham, Jean Lee Drake: the Man they Called a Pirate, Harper 1960

32. Lomask, Milton Ship's Boy with Magellan, Doubleday 1960 (fiction)

33. Martin, Patricia Miles Daniel Boone, Putnam 1965

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35. Mirsky, Jeanette Balboa Discoverer of the Pacific, Harper 1964 (A Breakthrough book)

36. Montgomery, Elizabeth Rider Hernando de Soto, Garrard 1964 (adventure)

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40. Protter, Eric Explorers and Explorations, Grosset 1962 (motivations for and results of discoveries)

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44. Smith, Frederika Shumway Frémont: Soldier, Explorer, Statesman, Rand McNally 1966

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46. Sperry, Armstrong, The Voyages of Christopher Columbus, Random 1950 (the four voyages, some seldom heard accounts of his sea voyages and mutinies of his crew)

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52. DeSoto: Finder of the Mississippi, Morrow 1957

53. First Man to Cross America: The Story of Cabeza de Vaca, Morrow 1961

54. Francisco Coronado and the Seven Cities of Gold, Morrow 1965

55. Henry Hudson, Morrow 1955

56. LaSalle of the Mississippi, Morrow 1958

57. Magellan, First American Around the World, Morrow 1953

58. Vasco Da Gama: Sailor Toward the Sunrise, Morrow 1959

59. Tousey, Sanford, John C. Fremont: Western Pathfinder, Whitman, 1953 (Pioneer Books)

60. Wilkie, Katherine E. Daniel Boone: Taming the Wilds, Garrard 1960

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Filmstrips

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63. Crawford, Thomas, Ponce de Leon in the New World, Troll Associates color, captioned filmstrip (American Backgrounds Filmstrip Library)

64. French Explorers of the New World, Encyclopedia Britannica Educational Corp. (EB 9270) 1961, 4 color captioned filmstrips, Cartier, Champlain, Joliet, LaSalle.

65. Crawford, Thomas, Leif the Lucky, Viking Explorer. Troll Associates 1939, color, captioned filmstrip (American Backgrounds Filmstrip Library)

66. Leif Ericson, single color captioned filmstrip of series, Heroes of Long Ago, Encyclopedia Britannica Films 1953

67. Man Who Discovered the Grand Canyon, Troll Associates 1968, Color, captioned filmstrip (American Backgrounds Filmstrip Series) Coronado seen as Spanish adventurer in search of gold.

68. Champlain in the Wilderness, Troll Associates 1970, captioned, color filmstrip

69. Balboa Discovers the Pacific, Troll Associates 1970, captioned color filmstrip

70. Around the World with Magellan, Troll Associates, 1970, captioned color filmstrip

71. Discovery, Exploration and Colonization of America, SVE 1961, 6 Filmstrips, 3 records. See First Two Titles: Discovery of America, Exploration of America

72. Men Who Explored Great American Rivers, Troll Associates 1968, (American Backgrounds Series) Color captioned filmstrip.

FILMS FROM BOCES See also 1974 BOCES Film Catalog

73. Columbus and Isabella, 22 minutes (You Are There Series) Catalog 01052

74. Lewis and Clark at the Great Divide, 22 minutes (You Are There Series) Cat. 01057

Transparency

75. Voyages of Discovery

76. Exploration of United States

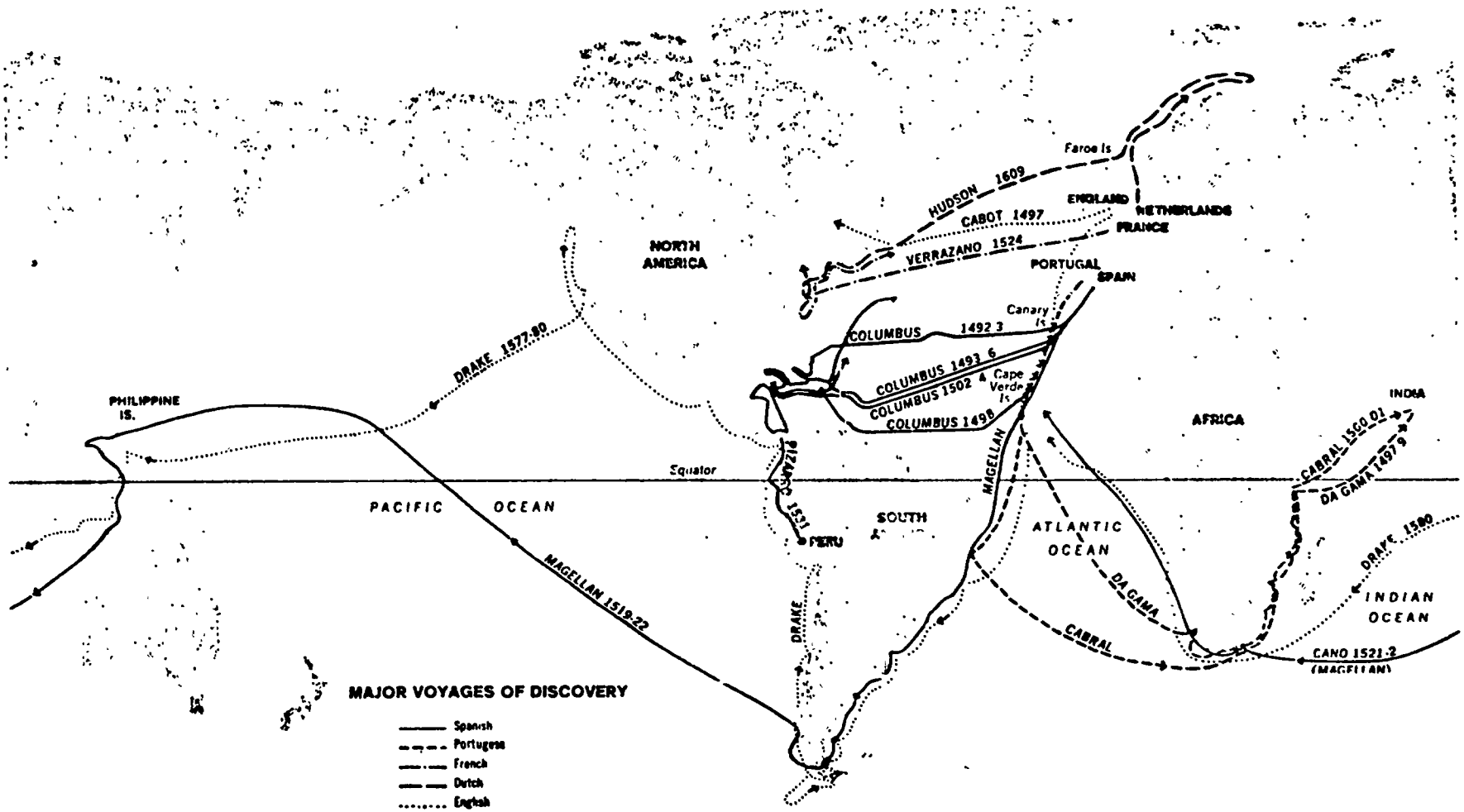
Items 75 and 76 are map transparancies of the American History Series, Hammond 8496, copyright 1969. If these are not available, trace old maps from texts or encyclopedias on clear transparancies.

Games

77. Munson, Harold L. and Gockley, Gilbert C., Career Insights and Self-Awareness Games, Houghton Mifflin Co. 1973 (see Game Leader's Manual and game guide No. 2 Life Goals) available through BOCES film library

Newspaper

78. New York Times, Young Explorers' New York by Margaret F. O'Connell
Book Review Section, July 14, 1974, p. 8


Faroe Is
HUDSON 1609
ENGLAND
NETHERLANDS
CABOT 1497
FRANCE
VERRAZANO 1524
NORTH AMERICA
PORTUGAL
SPAIN
Canary Is
COLUMBUS 1492 3
COLUMBUS 1493 6
COLUMBUS 1502 4
Cape Verde Is
COLUMBUS 1498
DRAKE 1577-80
PHILIPPINE IS.
INDIA
AFRICA
CABRAL 1500 01
DA GAMA 1497 9
Equator
PACIFIC OCEAN
PIZARRO 1531
PERU
SOUTH
MAGELLAN
ATLANTIC OCEAN
DRAKE 1580
DA GAMA
INDIAN OCEAN
MAGELLAN 1519-22
DRAKE
CABRAL
CANO 1521-2
(MAGELLAN)
MAJOR VOYAGES OF DISCOVERY
Spanish
Portugese
French
Dutch
English

CAREER EDUCATION TEACHER'S GUIDE

Grades 4 - 5
Social Studies

INVENTORS WHO LEAD--CAREERS THAT FOLLOW

Rockland County Career Education Program
Dr. Laurence W. Aronstein, Coordinator
Rockland County BOCES
West Nyack, New York 10994

PREFACE

This teacher's Guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize Career Education.

It is not our intention that these Guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each Guide is uniquely designed to emphasize how Career Education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing Career Education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the Guides.

Particular mention should be made of those teachers who originally developed the premise for this Guide.

Frank Corica	Pearl River
Judith Dudyak	Haverstraw-Stony Point
Evelyn Everson	Haverstraw-Stony Point
May Hersey	Clarkstown
Zaka Kahn	East Ramapo
Anne Nash	Nyack
Ursula Pardo	Clarkstown
Rosalie Race	Clarkstown
Rosemarie Tannus	Ramapo

Acknowledgment should also be given to those teachers who rewrote and reinterpreted those Guides into the present form presented here.

Ruth Berlin	East Ramapo
Nickolas Kelepis	Nanuet
Ursula Pardo	Clarkstown

INTRODUCTION

Throughout the ages, children have studied the lives and accomplishments of great men. In this unit, Inventors Who Lead - Careers That Follow, we study these great men with a career perspective in mind. This Career Education Gulde attempts to focus on the aspects of the inventor which are involved with developing self-awareness, career-awareness and economic-awareness for each child.

Each unit places emphasis on career education as the inventor and his inventions are explored. In this way, we hope to broaden the scope of the traditional study of these great men. Therefore, the goals of this Career Education Unit are to increase the child's understanding of himself, his decision-making skills and his eventual role in the world of work.

The bibliography for all of these units can be found at the end of the guide. It includes a variety of sources and references for each unit.

Each unit on the specific inventor can serve as a model for the additional study of other great men. These units can be utilized in any order and with some flexibility, can be adapted to the interests and needs of the children. The teacher should feel free to add activities and resources that may suggest themselves in her particular program.

CONTENTS

INTRODUCTION

I Alexander Graham Bell

II Thomas Alva Edison

III The Wright Brothers

IV Eli Whitney

V George Washington Carver

BIBLIOGRAPHY

STRATEGY NUMBER 1

NAME OF UNIT Alexander Graham Bell

GRADE/SUBJECT Grades 4 - 5

Major Aim To develop an understanding of how Bell's personal characteristics led to his success as an inventor.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to recognize the personal characteristics of Alexander Graham Bell	The characteristics of Alexander Graham Bell which are important to recognize are determination, ability to relate information from his job as a teacher of the deaf to the field of sound transmission, humanistic characteristics and intelligence.	1) Reading skill activity-Read selections from suggested books to pinpoint all or some of the personal characteristics of Bell (e.g., determination, humanism). 2) Based on the information acquired from the above activity, the children will use puppets to act out incidents and events in the life of Bell which tend to illustrate the personal characteristics. 3) The children will listen to tape: Living History Tapes - Bell. Discuss personal characteristics of Bell. 4) The children will break into small groups. Each group will list five characteristics of Bell and try to match each characteristic with a child in the group. Class discussion will follow.	Ebling, King & Harlow Great Names in Americ. History, Laidlow, 196 Mr. Bell Invents the Telephone, Random Hou N. Y. 1952; Rberle, I Famous Inventors for Young People, Dodd, Mead & Co., N.Y. 1960 Makers of American History, Noble & Nobl Tape: Living History Tapes # HG6713 - Bell Imperial Internationa Learning

EVALUATION PROCEDURE: The teacher will make a ditto listing the characteristic elicited from the group discussion. Each child will write a paragraph comparing one of Bell's characteristics with one of his own.

STRATEGY NUMBER 2

NAME OF UNIT Alexander Braham Bell GRADE/SUBJECT Grades 4 - 5

Major Aim The children will be able to trace the careers available today that are an outgrowth of Alexander Graham Bell's invention.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to list the kinds of jobs necessary to make our telephone "work".	The manufacture and use of the telephone involves a wide variety of careers	1) Visit the telephone company. Discuss kinds of jobs available with personnel director. Talk to as many workers as possible 2) Write and produce a skit on "Terry, the Telephone" including for the cast as many workers as possible involved in making and providing the services of a telephone. (eg., inventor, designer, producers of raw materials, assembly line workers, custodian in the factory, office workers, advertiser, installer, operator, repair man, directory maker, etc.)	New York Telephone Company Filmstrip and Record: People Who Make Things Part 4 Guidance Associates

EVALUATION PROCEDURE: Make a telephone mobile with each part illustrating one of the jobs necessary in making our telephones "work".

STRATEGY NUMBER 1

NAME OF UNIT Thomas Edison II GRADE/SUBJECT Grades 4 - 5

Major Aim To develop an understanding of how Edison's personal characteristics led to his success as an inventor

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
1) The children will be able to recognize the personal characteristics of Thomas Edison, particularly his endurance, his practical approach, his excellent use of people and resources and his inquisitiveness. 2) The children will be able to list at least 5 ways in which life has changed as a result of Edison's work.	1) An individual's early life and personal development influence his occupational choice and his success with this occupation. 2) Edison's inventions were responsible for many changes in each person's everyday life.	1 a) Children will do independent research on Edison's childhood and how it influenced and determined his career. In this research, make a list of incidents of his childhood which are preparatory to his adult behavior and accomplishments. 1 b) Read and discuss sports. Class discussion should focus on Edison's early life and how he developed personally to become the great inventor he was and the the scope of his inventions. (over 100 inventions) 1 c) Divide into small groups to work on SCIS Kits which have electrical activities. Give one group a leader and specific directors. Let other proceed on its own. Then discuss success of groups as they complete task with informed leader (as Edison was) or leaderless. How did you feel working in a group with a leader or without a leader? 2) Skits to be developed by small group which portray life without Edison's Inventions. (light bulb, waxed paper, phonograph	SCIS Kits

EVALUATION PROCEDURE: Develop a bulletin board, using children's independent research reports which outline Edison's life and accomplishments.

STRATEGY NUMBER 2

NAME OF UNIT Thomas Edison II

GRADE/SUBJECT Grades 4 - 5

Major Aim To develop an understanding of the range of careers related to Edison's inventions.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
1) The student will be able to list at least 10 careers related to the field of electricity. 2) Children should be able to describe at least 2 electrical jobs in depth.	Man's inventions produce new jobs and careers. Different jobs have definite requirements, advantages and disadvantages, working conditions and rewards.	1) Children bring in newspapers and cut out all ads related to jobs that are in the field of electricity. (Electricians, air-conditioning repairman, radio & T.V. repairman, etc.) 2) In small groups, do research on at least 10 of these jobs. Each report should include information on: nature of work, places of employment, training and qualifications needed, opportunities for advancement, employment outlook, earnings & working conditions. 3) Invite parents and community people who work in electrically related fields to speak with class about their job. Questions might be: 1. Do you like your job? 2. Is it hard work? How many hours? 3. Do you feel that you can get ahead on your job? 4. What special training or education do you need? 5. Can you tell us the advantages and disadvantages of your job? 6. How did you get your job?	1) Local newspaper 2) N. Y. Times 3) Occupational Outlook Handbook, U. S. Dept. of Labor Bureau of Labor Statistics. 1972-73

EVALUATION PROCEDURE: Each child will write a job description for a single electrical job that he might be interested in doing. Job description should include information acquired from Occupational Outlook Handbook and resource people who visited class.

STRATEGY NUMBER 1

NAME OF UNIT Wright Brothers III

GRADE/SUBJECT Grades 4 - 5

Major Aim To develop an understanding of the Wright Brothers' characteristics which led to their success as inventors.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to recognize the personal characteristics of Wilbur and Orville Wright. These characteristics include: determination, patience, single-mindedness, intensity of purpose, infinitely careful workers.	To be an inventor, definite skills and qualities of personality are needed.	A) Write a short biography about the life and work of the Wright Bros. Indicate growing up period; qualities of personality; learned skills; and the sequence of events leading to the invention of the airplane. B) Prepare a poster with the title, "Happiness is Inventing and Airplane". Include pictures and words which describe the work of the Wright Bros. C) The children will bring in and construct model airplanes. The children describe their individual problems encountered in building these model airplanes. List personal characteristics needed to solve these problems.	

EVALUATION PROCEDURE: Children will write a composition describing how they think the Wright Brothers felt about devoting their entire life to a single goal. Children may read some to classes on the same grade level.

NAME OF UNIT Wright Brothers III STRATEGY NUMBER 2 GRADE/SUBJECT Grade 4 - 5

Major Aim The student will develop an understanding of how the Wright Brothers invention led to the growth of the aviation career cluster.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to identify at least 5 occupations related to aviation.	There are many occupations related to the field of aviation	1) Arrange and take a field trip to the local airport. Tape record sounds and interviews with as many aviation workers as possible. Children take photos of workers in field. 2) Group research on 5 of the observed occupations to fill in career information not gained in taped interviews. Research should include information on job advantages, nature of work, hours of employment, special training and education, danger involved (if any), rewards, job opportunities. Reports when presented should include tapes, photos (when possible) and research information.	1) Ramapo Airport 2) Cameras 3) Tape Recorder 4) Occupational Outlook Handbook-- U. S. Dept. of Labor 5) Hopke, Encycloped of Careers, Vol II, J. G. Ferguson Publ. Co., 1972

EVALUATION PROCEDURE: Using information presented in group reports and activities, children will participate in a panel discussion. Panel will discuss the need for the jobs in the aviation field today. Other classes in grade level can serve as audience for the panel discussion.

STRATEGY NUMBER 1

NAME OF UNIT Eli Whitney GRADE/SUBJECT Grades 4 - 5

Major Aim To develop an understanding of how Whitney's inventions led to a change in American Life Style

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to recognize how the contribution of Eli Whitney as an inventor changed the lifestyle of many people.	Eli Whitney's invention of interchangeable parts led to mass production and a large increase in factory employment which in turn, led to a shifting of a rural economy to a manufacturing economy	Assuming that lessons on Eli Whitney's invention have been taught, the following activities will deal with the result of his discoveries rather than the process. 1) To illustrate how machines help us, sharpen 2 pencils with a knife and then with a pencil sharpener. Let class feel work, and discuss roughness of job and differences between pencils. This experiment should point out advantages of using machines. 2) Now that machine advantages have been demonstrated, shift discussion to how machines brought factories and growing factories produced a shift in population to the cities. 3) Students divide into 2 groups, farmers & factory workers. Then after discussing their life in small groups, put list on board of aspects of each type of life (e.g., outdoors or indoors, works alone or in groups, lives in rural or urban environment, etc.) Point out how factories have changed the texture of American Life. 4) Class will be turned into factory for production of artificial flowers. Class will be divided into 2 groups. One group will make the flowers by assembly line. The other group will each make a flower. After activity is over, the following questions should be discussed: (a)Which system is more efficient? (b) Which system is more satisfying to the worker? (c)What were the personal advantages and disadvantages to each method? Discuss creativity, speed, teamwork, boredom, personal challenge and feelings of self-worth.	2 pencils sharpener knife film cassettes

EVALUATION PROCEDURE: Children will work in small groups to produce a film strip "A Day in the Life of a Farmer" and "A Day in the Life of a Factory Worker." Cassettes may be used in conjunction with the film strip.

Film strips should make the children aware of the differences in life styles.

STRATEGY NUMBER 1

NAME OF UNIT Eli Whitney

GRADE/SUBJECT Grades 4 - 5

Major Aim To develop an understanding of how Whitney's Inventions led to a change in American Life Style

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to recognize how the contribution of Eli Whitney as an Inventor changed the lifestyle of many people.	Eli Whitney's invention of interchangeable parts led to mass production and a large increase in factory employment which in turn, led to a shifting of a rural economy to a manufacturing economy	Assuming that lessons on Eli Whitney's invention have been taught, the following activities will deal with the result of his discoveries rather than the process. 1) To illustrate how machines help us, sharpen 2 pencils with a knife and then with a pencil sharpener. Let class feel work, and discuss roughness of job and differences between pencils. This experiment should point out advantages of using machines. 2) Now that machine advantages have been demonstrated, shift discussion to how machines brought factories and growing factories produced a shift in population to the cities. 3) Students divide into 2 groups, farmers & factory workers. Then after discussing their life in small groups, put list on board of aspects of each type of life (e.g., outdoors or indoors, works alone or in groups, lives in rural or urban environment, etc.) Point out how factories have changed the texture of American Life. 4) Class will be turned into factory for production of artificial flowers. Class will be divided into 2 groups. One group will make the flowers by assembly line. The other group will each make a flower. After activity is over, the following questions should be discussed: (a)Which system is more efficient? (b) Which system is more satisfying to the worker? (c)What were the personal advantages and disadvantages to each method? Discuss creativity, speed, teamwork, boredom, personal challenge and feelings of self-worth.	2 pencils sharpener knife film cassettes

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Film strips should make the children aware of the differences in life styles.

Steps in assembling flowers.

STRATEGY NUMBER 1

NAME OF UNIT George Washington Carver GRADE/SUBJECT Grades 4 - 5

Major Aim To develop an understanding of how in spite of early obstacles, Washington Carver became a famous inventor

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The children will be able to trace how the early life of George Washington Carver contributed to his accomplishments as an adult.	Early life experiences mold the adult.	1a)Have the teacher read the story of George Washington Carver to the class. Compile a list of the significant incidents in his life. (His parents were slaves, he was a slave, his early kidnapping, his being traded for a horse, his father was killed in an accident when he was a baby, etc.) 1b) The children will compare the childhood of Carver with the childhood of an inventor already studied in order to recognize that varying backgrounds can produce the same kind of dedication to an idea. Class will produce a chart culminating this comparison. 1c) Write a creative story using an experience you had or a personal characteristic of yourself, (Selfishness, perseverence, sticktuitiveness, gentleness, intelligence), which may enable you to become a famous inventor.	Ditto listing character traits

EVALUATION PROCEDURE: Children receive teacher-made ditto listing numerous character traits. Children break into small groups to discuss which of these character traits contributed to (his) Carver's accomplishments as an adult.

STRATEGY NUMBER 2

NAME OF UNIT George Washington Carver

GRADE/SUBJECT Grades 4 - 5

Major Aim To develop an understanding of the careers related to the scientific findings and inventions of George Washington Carver

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to list at least 5 jobs related to the research done by George Washington Carver	Research, inventions and scientific discoveries lead to many new careers.	1) Have the children bring in pictures which relate to all the products that the peanut gives us(i.e. cooking and salad oil, ink, soap, peanut butter) Use these pictures to develop a bulletin board on the uses of the peanut. 2) Class will link at least one career to each peanut product illustrated on bulletin board. Brainstorm this task together. 3) Classify these careers under the specific career umbrella it relates to (ex. food processing, agricultural research, advertising and packaging, etc.) 4) Have small groups choose a career cluster and research the jobs in it in terms of nature of work, job advantages and disadvantages, training and qualifications, employment outlook, earnings, etc.	Pictures Bulletin board Occupational Outlook Handbook, U. S. Dept of Labor Statistics 1972-73

EVALUATION PROCEDURE: The children will develop a "Help Wanted Section" based on some of the jobs discussed, researched and classified during this unit. Attention will be given to details of job specifications.

Film-History of Aviation-Part I- 28 min., Dept. of the Army Educators Guide To Free Films

Filmstrip-The Wonder of the Electric Light, Eye-Gate

Filmstrip-George Washington Carver, Troll Associates

Tape-Living History-#6713-Bell, Imperial International Learning

Filmstrip-People Who Make Things-Part 4, Guidance Associates

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Audio-Visuals

Film BOCES-Food-The Story of A Peanut Butter Sandwich-Color-15 min.

Filmstrip-George Washington Carver SVE #242-2

CAREER EDUCATION TEACHER'S GUIDE

Grades 4 - 5

SAFETY AND HEALTH IN SCHOOL AND INDUSTRY

Rockland County Career Education Program
Dr. Laurence Aronstein, Coordinator
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West Nyack, New York 10994

PREFACE

This teacher's Guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize Career Education.

It is not our intention that these Guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each Guide is uniquely designed to emphasize how Career Education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing Career Education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the Guides.

Particular mention should be made of those teachers who originally developed the premise for this Guide.

Ursula Pardo - Clarkstown
Lenore Loeb - Pearl River

INTRODUCTION

This unit has been prepared to develop safety and health awareness in children, from fourth to sixth grades, as an important part of their education. Knowing where and how accidents can happen and studying how industry meets these challenges increases a child's ability to take care of himself. This unit is devoted to the practices of industry in dealing with safety problems and the personnel required to deal with these problems.

We hope to stress in this unit the careers that are available in safety and health. Since career awareness begins with the individual, we have tried to focus on what is familiar to the student.

Although the strategies are linked by common themes, they need not be used sequentially, but could be interspersed either in the existing safety curriculum, or in social studies; i.e. when you are teaching the units on the changes in a country as it moves from a rural society to an industrial one. It could be infused with the United States study from an industrial focus.

There is little available material on the elementary level in this particular subject, but the local companies such as Lederle and Orange & Rockland are more than willing to cooperate with materials, classroom visits, and speakers. Parents too, can be a valuable resource and an occupational file might be developed early in the year.

The enactment of the Occupational Safety and Health Act of 1971 (OSHA) has done much to enforce safety standards in industry.

We hope that this unit will alert the student to maintain safe practices in his home, classroom, and on the playground, and make him aware of the numbers of people and the variety of roles they play in industry.

The bibliography at the end of the unit contains two lists of suggested available films and filmstrips. One is specifically materials put out by Orange & Rockland, and the other, all other available films and filmstrips. We have also included a list of industries we contacted locally. The teacher should feel free to use all activities and resources that may suggest themselves in his or her particular program.

STRATEGY NUMBER 1

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 and 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The child will be able to list the important safety rules in an industrialized society.	Safety is an important element in our industrial society where we must move large numbers of people from one area to another with speed and safety.	(1) Set up a situation with another staff member where two classes will be given no instruction other than to change classrooms at a designated time. Use a stop watch to time this change. Discuss results once the transfer has been made. Elicit reactions and develop: (a) need for individuals to establish rules and guidelines (b) need for individuals to establish traffic patterns (c) need for a traffic regulator (d) Lead into development of concept of mass transportation being necessary in industrialized areas. (2) After discussions reenact procedure and evaluate as to time elimination of dangers, hazards and confusion (3) Child will meet in committees to list and/or possibly chart the major safety procedures, and why they are necessary.	BOCES Films: Ants: Backyard Science #00434 Kind Hearted Ant #00435 Education Film Universi of Ill. 1969-72 #03053 Safety Rules for School

EVALUATION PROCEDURE: Students will list safety procedures they thought of relative to moving about the school.

STRATEGY NUMBER 11

NAME OF UNIT Safety and Health In School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Children will be able to determine the continual need for reassessment of safety rules.	There is a continual need for reassessment of safety rules	(1) Set up a fire drill to be held in school. (Either entire school or single class.) Afterwards have a discussion and assess: (a) traffic patterns, (b) following directions, (c) respect for safety and lack of mass confusion, (d) career awareness of fire inspectors and their specific roles; makers of safety and fire fighting equipment, extinguishers and sprinkler systems. (2) Make a map or model of the school, showing all rooms. This can easily be done by various committees. All exits should be drawn in. Then using arrows show traffic patterns used during fire drills. (3) Discuss possible alternatives and ways to improve them. Stress the possibility that existing paths normally used might be blocked.	BOCES Film: Donald's Fire Survival Plan #00490 Educational Film University of Ill. Safety with Fire #02172

EVALUATION PROCEDURE: The children will make a large map showing all rooms in the school, using arrows to portray traffic patterns during a fire drill Discussion on possible alternatives and ways to improve these traffic patterns would indicate the students awareness of the need for continual reassessment.

STRATEGY NUMBER 111

NAME OF UNIT Safety and Health In School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Students will be able to evaluate the safety procedures in the school, and to select the class with the best safety practices.	Rewarding good safety practices should reduce accidents.	Teacher will set up committees of 2 or 3 children. Each committee will be assigned one classroom in the school. At the end of each day the committees will go to their classroom and interview the teacher as to various accidents occurring in the class room that day. One committee might interview the nurse as to accidents in the halls, lunch room or playground. A record of these accidents will be kept for one month. At the end of the month, tabulate the results on the blackboard, and give an award to the class with the least number of accidents. (A chart could be made showing where most accidents occur in the school.) PTA might be contacted to give a concrete prize to the safest classroom.	McGraw Hill Filmstrip A Good Citizen Grows in Responsibility #FS 613171

EVALUATION PROCEDURE: Students will observe number of accidents and whether they decrease as a result of rewards. This can be done a second month to compare whether the motivation of an award might decrease the number of accidents.

Fact Sheet
CYANAMID SAFETY DAY
May 8, 1974

1. OBJECTIVE:

To observe the annual Cyanamid Safety Day by conducting appropriate programs in U.S., Canada and other locations to emphasize the company's policies, procedures and practices of employee protection in the work environment and for their families as well.

The 1974 theme dramatizes the role of the individual employee in strengthening Cyanamid's 'ring of protection' embracing Safety, Industrial Hygiene, Occupational Medicine and Loss Prevention.

A. The local observance should be built around the traditional safety meeting(s), highlighted by Chairman C. D. Siverd's message. Once again, this will consist of a recorded 8-10 minute commentary synchronized with 35 mm color slides illustrating employee protection activities at various Cyanamid locations. Other program activities may include demonstrations, films, current environmental occupational practices and problems. Participation by union representatives, community and state officials and other non Cyanamid safety specialists may also be considered.

B. Exhibits of safety equipment and devices used in Occupational Medicine, Industrial Hygiene and Loss Prevention may be set up in appropriate locations following past practices. Off the job safety should also be emphasized.

C. Wayne will provide a kit of materials including posters, news release and other items.

SAFETY DAY PROGRAM SUGGESTIONS

1. Departmental safety meetings.
2. Safety flag flown at main entrance.
3. Special issue of plant publication.
4. Departmental Safety Certificate Presentations.
5. Safety and environmental protection equipment displays for easy viewing by personnel and visitors.
6. Employee children poster contest dealing with off-the-job safety.
7. Safety demonstrations, including fire drills and films.
8. Attendance by mayors, public safety and public health officials and the press.
9. Safety literature distribution.
10. Safety kit of materials sent to State Industrial Safety Commissioner.

HL/lk
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1973 SAFETY DAY PROGRAMMING

(reprinted from CYANAMID NEWS)

Safety Day 'disasters' lend real punch

A helicopter crash, tank car derailment, truck-car smashup and numerous fires occurred in a single day recently at Cyanamid locations around the world. The mock disasters were part of the Sixth Annual Safety Day observance.

Many plants had special activities for the May 9 event, such as poster contests and guest speakers, which complemented a slide presentation and taped message by Chairman C. D. Siverd.

Local newspapers covered most of the programs and used photos of employees in emergency drills.

In keeping with the theme, some plants displayed splash goggles and other protective gear at building entrances, while others presented plaques to accident-free departments.

Typical of the company-wide programs were the safety discussions between foremen and hourly shift employees at the Perrysburg, Ohio plant.

Prizes up to $100 for the best safety posters were offered employees and their children at several locations. A unique contest was sponsored by the Memphis (Shalton) plant. Employees were asked to find the number of safety faults in a picture of a workshop. The winner got a day off with pay.

A spot check turned up other unusual items:

Standard Coated Products in Buchanan, N. Y., simulated a rescue operation from a tank car wreck with Peter Wheeler, a junior mechanic, playing the part of the "victim."

A fake car-truck collision at the main gate of the Formica Corporation plant in Sierra, Calif., was staged during a shift change. The scene was complete with ambulance and highway patrol cars.

The St. Louis distribution center ordered a cake with the lettering "Safety Anniversary 1973," while Burma Shave-type safety slogans were erected on the Bound Brook plant's main thoroughfare.

The mayor of Danbury, Conn., was among special guests at the Davis & Geck program. At Havre de Grace, secretaries manned canopied booths in the parking lot and distributed safety literature. The Agricultural Center's cafeteria at Princeton had safety slogans on napkins and placemats, and Wayne showed a film on the damage involved in a small car-large car head-on crash.

Cyanamid International reported a score of activities among subsidiaries, including the mock crash of a Royal Navy helicopter at the plant in Gosport, England. Employee fire fighting teams in asbestos clothing rushed to the scene, followed by medical units.

Children of employees at the Botlek, Holland, facility joined the local fire brigade in a training exercise. In a similar drill at the Florencio Varela plant in Argentina, the fire brigade reached the "disaster site" in a swift 80 seconds.

Speed was also the key in Brazil, where fire fighting teams at the Sao Paulo, Rezende, and Rio de Janeiro plants competed for prizes.

At Hsinchu, Taiwan, the Ministry of Interior Affairs' award was presented to Cyanamid Taiwan Company for its year-round safety record.

"This was definitely one of our best Safety Day observances," summed up W. V. Ardigo-ni, Director of Occupational Environmental Services. "One plant manager said the day gave his safety program a good shot in the arm. I hope that was true all over."

STRATEGY NUMBER IV

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Students will be able to contribute to the Safety Program at school by planning a "Safety Day."	Safety is the responsibility of every citizen.	Compare with safety campaigns of Lederle. Set up possible "Sefety Day" in your school using attached sheet as guideline. Other material might be gathered from large companies to be used as guidelines. Discussion of possible benefits of having "Safety Day" could follow.	Safety Day plan from Lederle Material from other companies.

EVALUATION PROCEDURE: Listing of benefits of "Safety Day" could be made available to Principal or rest of school.

STRATEGY NUMBER V

NAME OF UNIT Safety and Health In School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Students will be able to identify jobs relating to traffic safety and transportation. Students will analyze his/her skills and attitudes in relation to a job.	Self-awareness is important when choosing a career.	(1) Teacher will brainstorm with class and list on blackboard careers in transportation and traffic safety. Following this, list qualities that might be needed for each job. (2) Each student should select a job and in paragraph form, tell why he/she is suited for that job. (3) Children should bring in picture from newspaper or magazine showing worker in Safety or Transportation. Make bulletin board from pictures.	Eyegate 1974: Learning the New International Road Signs (2 filmstrips, 1 cassette) #X458 Driving Right 76 filmstrips with cassettes incorporate road safety) #X457 Cars, Bikes and Peopl #239B

EVALUATION PROCEDURE: Students will identify 10 jobs relating to traffic safety and transportation.
Teacher evaluation of student activity #2

NAME OF UNIT Safety and Health in School and Industry STRATEGY NUMBER VI GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students will be able to formulate a questionnaire in order to obtain information on safety and health.	It is important to know how to obtain health and safety information.	Children will compile a questionnaire to use for letter writing and interviewing guest speakers. Suggested questions follow: (1) Do you have a health officer? Safety Officer? (2) How do you maintain standards of safety and health? (3) How do you motivate your employees to be concerned about standards of safety and health? (4) What audio visual materials do you use for on-the-job health and safety education? (5) Do you have fire or disaster drills? How are they organized and evaluated? (6) In your industry what is the main safety hazard? (7) How do you develop safety specifications for each department? (8) What protective clothing or devices must your employees use and familiarize themselves with? (9) How has the OSHA of 1971 helped the campaign for safety in your industry. (10) Do you have a Safety Committee? What is its role? How often does it meet? Who participates?	Eyegate 1974 1974 Public Service Workers #H456 Contact the Office of Occupational Safet and Health 90 Church Street New York, N.Y. 10007 (OSHA)

EVALUATION PROCEDURE: Teacher will observe questioning and interaction of students and speakers, as well as properly written letters.

STRATEGY NUMBER VII

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to deduce that large utility companies employ safety and health practices.	Safety and health are integral parts of the practices of large utility companies.	Teacher will contact Orange & Rockland, or New York Telephone Co. and they will provide for a program in the classroom that is twofold. It is safety and career education oriented. They will gear it to the time allotment, and interest of the group. Since safety procedures are an integral part of the programs they will discuss the use of: (a) Safety glass (b) Hard hats and other apparel (c) Rubber gloves and tests made on them (d) Poles (phone and electric) The work and people involved are also discussed, and questions encouraged. Children will be allowed to use the equipment and apparel in the proper way.	Contact: New York Telephone Co. at 914 356-7900 speak with Mrs. Murphy (consultant) Program called Installer Truck Visit Orange & Rockland Community Relations Manager

EVALUATION PROCEDURE: The student will list three utility companies, and identify three safety and three health practices that each company uses.

STRATEGY NUMBER VIII

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students will be able to demonstrate their knowledge of writing a business letter by writing one to a major industry to discover its safety practices.	It is necessary to write business letters to obtain information from industry.	Write a letter to any of the companies on the attached list. Brainstorm with the children the various points of information you want from the specific company. (i.e. Questionnaire below) (It is assumed that the student has already been taught to write a business letter as part of the curriculum.) Questions for business letter: 1. Do you have a safety officer? 2. Do you have a health officer? 3. How do you maintain standards of safety and health? Committees, campaigns 4. How do you motivate employees to be concerned about standards of health and safety? 5. What audio-visual materials do you use in this area? 6. Do you have fire drills? How are they run? 7. In your industry, what is the main safety hazard? 8. What protective clothing or devices must your employees use? 9. Has the OSHA* of 1971 helped your industry in campaign for safety? *Occupational Safety and Health Act of 1971. 10. How many accidents do you have in a year? 11. How do accidents this year compare with accidents in last 2 years? 12. Where do most of accidents occur? (a) in parking l (b) on assembly line (c) from unsafe apparel (d) in the offic	(1) List of major companies (2) List of questions

EVALUATION PROCEDURE: Teacher will check business letter for accuracy, and observe the class brainstorming possible questions on safety.

STRATEGY NUMBER IX

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students will be able to compile a list of the major types of accidents in industry.	Accidents happen in all areas of industry.	When you have received the answers to your letters, make a chart showing the major areas in which accidents occur and their main causes. Class will analyze charts and discuss possible reasons for accidents and possible preventative measures. Teacher can stress need for on-going Safety Committees.	Educational Films University of Illinois 1969-72 Safety with Electricit #01340 Electrical Principles Safety. #00499

EVALUATION PROCEDURE: Class discussion and analysis of chart.

STRATEGY NUMBER X

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Student will be able to gather information about specific careers related to safety and health in industry.	Industrial development creates many jobs and careers.	After receiving answers from various industries, write a letter to the person in charge of safety in a specific industry. Stress the following questions: (a) What is the exact nature of your job? (b) What qualifications and prior training are necessary for your position? (c) What jobs in your industry fall into the field of health and safety?	BOCES Film Manufacturing #00858

EVALUATION PROCEDURE: The teacher will observe that succinct questioning is used in letter writing to industrial companies regarding safety and health practices.

STRATEGY NUMBER XI

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students will be able to read a want-ad within the field of safety and health.	Different jobs have definite requirements and working conditions.	While waiting for a response from the Safety Officers, a lesson on want-ads in the local paper could be done. Children could bring in newspapers and circle all ads related to jobs in safety and health. Teacher should stress abbreviations used, and use the following questions: 1. What different jobs are? 2. Where is job? 3. Whom do you contact? 4. What qualifications are needed? 5. What is cost of ad? (Stress need to be concise.)	Local newspapers

EVALUATION PROCEDURE: The teacher will observe that students can discern and read want ads dealing with safety and health.

STRATEGY NUMBER XII

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to read and write a want-ad within the field of safety and health.	Definite skills are needed to work in the fields of safety and health.	When answers are received from safety officers, the students can be set up in committees of two. One child will write a want-ad for a "safety" person; the other will answer the ad. These will be read aloud in class and discussed. (Children might also role-play an interview if the teacher thinks the children can handle this.)	

EVALUATION PROCEDURE: The teacher will observe the ability of students to write and respond to want-ads.

STRATEGY NUMBER XIII

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to participate in a panel discussion where he will compare and contrast the responsibility of safety officers.	Safety is an important element in an industrial society.	When answers are received from safety officer, the children who received answers will form a panel. The class can elect a moderator and have a panel discussion on the ways in which the various industries handle their safety problems. The strengths and weaknesses of these programs could be one of the discussion points. A question and answer period by the rest of the class should follow.	

EVALUATION PROCEDURE: The teacher will observe the quality of material used by the panelists, and the questions posed by the student audience.

STRATEGY NUMBER XIV

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to conduct an interview with a working member of any major industry and report his findings to the class.	Interviews are an important tool in gathering information.	(1) Students will glean from the family constellation one member working in industry. They will then contact that person and question him as to: name of company, location, specific role of person, what health and safety practices are effectively used in that industry, what suggestions can be made for corrective health and safety practices. (2) The results of the interview will be a two minute talk based on the interview. or Students can scout neighborhood and interview any available utility or service person using the above questions. The student will then give an orai presentation to the class.	Educational Films University of Illinois Safety with Everyday Tools #02593 How to Have an Accident at Work #02065

EVALUATION PROCEDURE: The resultant two-minute talk will provide the students with background health and safety information, and allow the teacher to make an assessment.

STRATEGY NUMBER XV

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Students will be able to discriminate between healthful and unhealthful food preparation.	For health purposes great care must be taken in the preparation of food.	Contact the people in the school system who handle food preparation and arrange for a class trip to observe the apparel (head covering, smocks, gloves) and discuss the reasons for this. As an alternative these people could be invited into the class to discuss: (1) Cleanliness-bacteria both harmful and helpful. (2) Personal health and innoculations to prevent germs from spreading. (3) Health laws put out by the Dept. of Health (4) That the community shares in the responsibility of keeping people healthy. (5) The individual has responsibilities in disease prevention. One-half the class will prepare sandwiches for the other half who will evaluate the procedure from health and safety aspects. (This should be an optional activity.)	

EVALUATION PROCEDURE: Teacher will observe preparation of sandwiches, and evaluation of safety and health practices.

STRATEGY NUMBER XVI

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Children will be able to note and name proper standards of health found in food and pharmaceutical industries.	Major food and drug companies have to maintain proper standards of health.	(1) Children will list five food and/or drug companies whose products are used at home. This can be compiled with a class chart. (2) From their list they will select one company and draw a series of cartoons to show healthful practices on the assembly line. or (3) Children can role play healthful practices on the assembly line after they have selected a company to portray along with one of their products.	

EVALUATION PROCEDURE: Teacher observation of role playing and the chart compiled by the students of food and drug companies that maintain proper health standards.

STRATEGY NUMBER XVII

NAME OF UNIT Safety and Health in School and Industry GRADE/SUBJECT 4 & 5

MAJOR AIM To foster career awareness in the major industries within the context of safety and health.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students will be able to incorporate knowledge of health and safety practices in industry in a three-dimensional project.	Major food and drug companies maintain proper standards of health.	As a culminating activity children can form committees, and with the material they have learned from listening, reading, interviewing, letter writing, discussing and role playing they will build a model using any of a variety of materials (clay, paper mache, small sticks, cardboard, etc.) to portray healthful and safe practices.	Eyegate 1974 A Field Trip to a Steel Mill #X338C Assembling a Car #X315A

EVALUATION PROCEDURE: Observation by the teacher of a three dimensional project of healthful and safe practices found in industry.

FILM AND FILM STRIP BIBLIOGRAPHY

A Field Trip to a Steel Mill. Eyegate, 1974 #X338C

A Good Citizen Grows in Responsibility. McGraw Hil Filmstrip FS613171

Altered Environment: An Inquiry into the American Highway. BOCES #00084 (9½ minutes)

Ants: Backyard Science. BOCES #00434 (11 minutes)

Assembling a Car. Eyegate, 1974 #X315A

Car Care for Safety. Eyegate, 1974 8-1

Cars, Bikes and People. Eyegate, 1974 X239B

Driving Right (six filmstrips with cassettes) Eyegate, 1974 #X457

Donald's Fire Survival Plan. BOCES Film #00490 (11 minutes)

Electricity: Principles of Safety. Educational Films, Univerisity of Illinois 1969-72 #00499 (11 minutes)

Highway Builders. BOCES #00841 (110 minutes)

How to Have an Accident at Work. Educational Films, University of Illinois, 1969-72 #02065 (8 minutes)

Kind-Hearted Ant. BOCES Films #00435 (10 minutes)

Learning the New International Road Signs. (2 filmstrips and 1 cassette) Eyegate, 1974, #X458

Manufacturing. BOCES Films #00858 (11 minutes)

Public Service Workers. Eyegate, 1974 #H458

Safety Coming to School and on the Way Home. Eyegate, 1974 #X332B

Safety on Our School Bus. BOCES Film #00977 (11 minutes)

Safety on Our School Bus. Educational Films, University of Illinois 1969-72 #00695

Safety on the School Bus. " " " " " " #02590

Safety on the School Bus. Eyegate, 1974 #X332C

Safety Rules for School. Educational Films, University of Illinois, 1969-72 #03058

Safety with Electricity. Educational Films University of Illinois, 1969-72 #01340

Safety with Everyday Tools. Educational Films, University of Illinois 1969-72 #02593

Safety with Fire. Educational Films University of Illinois 1969-72 #02172

Teaching Children Safety Through Unfinished Stories (2 filmstrips and record) Dem Company #P765392

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Avon Products
Suffern, N.Y.
Paul Scano, Safety Co-ordinator 357-2000

Ciba-Geigy
Hemion Road
Suffern, N.Y.
Mr. Lankering, Public Relations
Mr. Stevens, Plant Manager 357-1700

Lederle Laboratories
Middletown Road
Pearl River, N.Y.
Chuck Isberg, Community Relations Manager 735-5000

MRC
Route 303
Orangeburg, N.Y.
Wallace Cross El 9-4200

Multi Metal Wire Inc.
501 Route 303
Tappan, N.Y.
Alfred Stern 359-3000

New York Telephone Co.
Route 59
Spring Valley, N.Y.
Mr. Eggarton
Mrs. Murphy, Consultant: for trips 356-7900

Orange & Rockland Utilities, Inc.
75 W. Route 59
Spring Valley, N.Y. 10977
Community Relations Manager 352-6000

Rockland County Board of Health
Health and Social Service Complex
Sanitorium Road
Pomona, N.Y.
Dr. Waldron, Personnel Office 354-0200

World Wide Volkswagon
Greenbush Road
Orangeburg, N.Y.
Mrs. Cavari
Len Lawrence, Personnel Director 359-5000

CAREER EDUCATION TEACHER'S GUIDE

Grades 4 - 6

HEADLINES AND DEADLINES

Rockland County Career Education Program
Dr. Laurence Aronstein, Coordinator
Rockland County BOCES
West Nyack, New York 10994

PREFACE

This teacher's Guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize Career Education.

It is not our intention that these Guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each Guide is uniquely designed to emphasize how Career Education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing Career Education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the Guides.

Particular mention should be made of those teachers who originally developed the premise for this Guice.

Kathleen Bristol	South Orangetown
Susan Markey	South Orangetown
Virginia Murken	South Orangetown
Lou Rizzo	South Orangetown

Acknowledgment should also be given to those teachers who rewrote and reinterpreted those Guides into the present form presented here.

Esther Cember	East Ramapo
Kevin Finn	Ramapo
Eileen Goldblatt	Ramapo
Joan O'Hea	East Ramapo

INTRODUCTION

The importance of the newspaper as a medium of mass communication is unquestionable. Yet, a newspaper cannot be created without the multifaceted skills of dedicated workers.

The objective of this unit is to create an awareness and understanding of the dignity and worth of each individual whose occupational role contributes to the publication of a newspaper.

STRATEGY NUMBER 1

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM To foster social and communication skills appropriate to self-identity.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students will be able to identify the importance of a newspaper in a changing society.	A newspaper is an important form of communication.	1. Discuss: (a) What kind of information can people find in a newspaper that will help them in their daily lives? (e.g. local happenings, classified ads, ads in general, entertainment schedules, editorial opinions, etc.) (b) Where else can they find this information? (i.e. sometimes T.V. or radio, word of mouth) (c) Why buy a newspaper when some of this information can be obtained from other sources? (i.e. more complete, time to absorb information, etc. (d) Any other ideas elicited from children.	

EVALUATION PROCEDURE: The teacher will evaluate the lesson according to the quality of the discussion and the information obtained.

STRATEGY NUMBER 11

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM To foster social and communication skills appropriate to self-identity.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students will be able to identify and find information from the various sections of the newspaper. (e.g. news stories, editorial, sports, entertainment, woman's page, comics, puzzles, classified ads, gossip, travel, etc.)	A newspaper is composed of many diversified sections.	(1) Divide class into groups of 3-4 students. Give a copy of a newspaper to each group. These groups, in turn, are to list six different kinds of information they have obtained from the paper. Have one student from each group report his findings to the entire class. (Use a variety of newspapers to highlight the fact that many have differing editorial opinions.) (2) OPTIONAL- Have the findings listed on the chalkboard. As a student indicates where he located specific information, have him go to the board and list the section in which he found it.	A few copies of the following: (enough to cover each group) 1. Journal News 2. Bergen Record 3. New York Times 4. New York Daily News See: Teacher Resources

EVALUATION PROCEDURE: 1) The students ability to perform the activities.
2) Give the students four items from the paper not previously mentioned, and have them locate them.
3) Using actual sections of a newspaper, mount them on colored paper, and construct a large, colorful display.

STRATEGY NUMBER III

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM To gain a knowledge of the total spectrum of careers on a newspaper.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to identify those jobs available at a newspaper plant, and the skills needed to work in that area. 1) News reporter and editor. 2) Sports reporter and editor 3) Editorial writer 4) Classified ad writing 5) Proofreading 6) Circulation manager 7) Advertising Editor 8) " Sales 9) Librarian 10) Type setters 11) Press men 12) Photographers, etc.	There are many skills needed to produce a newspaper.	(1) A field trip to a newspaper. Arrange a visit to the printing plant and discuss with your town guide a diversified approach to the newspaper business. (*Do not concentrate on gathering of news at this point.) or (2) Contact a local newspaper. Have the paper send a representative to visit your class. Have a discussion with the students on the skills necessary for newspaper production.	Film: Big City Paper Trip to: 1. Journal News 2. Berger Record 3. Any New York City Newspaper etc.

EVALUATION PROCEDURE: Have the students look for three specific skills they will observe and list during the field trip. Upon returning to school have the students write a paragraph describing any two of the skills they listed.

STRATEGY NUMBER IV (Optional)

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM To foster career awareness within the context of creating a newspaper.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to describe the functions and requirements necessary to perform a particular job on a newspaper	Each person in the group has a unique contribution to make to the group in the production of a newspaper.	The group will research careers (such as listed in Strategy III under objective) using as many resources as possible. The group, in turn, will present its findings to the class in an unusual manner. (e.g. skit, slide show, puppet show, interview, tape recording. etc.) Students may add photos, sketches, captions, etc., to the classroom display begun in Strategy II, to illustrate "The Person Behind This Section of the Newspaper." Each student or group of students will select a newspaper career of his choice, (using information from Strategy III.)	Library, Media Center Librarian Books (see bibliography for students) Art Teacher

EVALUATION PROCEDURE: Students will be evaluated by the teacher on their ability to find and present information effectively.

STRATEGY NUMBER V

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM An understanding of the elements of journalism

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students will be able to identify a "news" story considering: Who? What? Where? When? How? Why?	A newspaper story has certain distinctive characteristics	*(1) Each student brings in a copy of the Journal News. Everyone selects the same story. The class circles and labels each of the "W's" and "H". (who, what, where, when, how, why.) (2) Let the students select another story of their own choosing, do the same, and trade stories with each other. *Prior to the activity, the teacher should employ a reinforcement lesson to see if the concepts of who, what, where, when, how and why, are understood by the students individually.	A copy of Journal News for each student Filmstrips: How to Read a Newspaper The Newspaper

EVALUATION PROCEDURE: The teacher will evaluate students ability to effectively use the five "W's" and "H".

STRATEGY NUMBER VI

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM An understanding of the elements of Journalism.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to write a "news" story considering Who? What? When? Where? How?	A newspaper story has certain distinctive characteristics.	(1) Role Playing: Editor-in-chief comes into the room and shouts the following instructions to several reports: (a) "Fire on the other side of town, you four cover it!" (b) "Hank Aaron is speaking to a little league group--you four cover it!" (c) "Two freight trains have collided near Route 59, you four cover it!" etc. (2) Now have each group provide the "W's" and "H" on the story they were assigned to cover. (Teacher or Editor-in chief will assign the story they are to cover to the groups.) (3) Now have each student write his own article. Have the large group evaluate the "news" stories and choose which will go into a "classpaper."	Filmstrip: (1) News writing

EVALUATION PROCEDURE: Students will rewrite stories based upon the critiques given by their classmates.

STRATEGY NUMBER VII

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM Student self-awareness.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will examine his own skills and interests to determine how he could best participate in creating a class newspaper. The student should complete a self-awareness inventory.	A person should feel free to assume a "job based upon his ability and/or interest.	Compose a self-awareness inventory such as: (a) Things I can do well: (b) Things I'd like to do well: (c) Things my friends think I can do well: (d) etc. (Have students use survey method.) Based upon students interests and abilities, form groups for production of a class paper.	Values Clarification (Simon)

EVALUATION PROCEDURE: Each student should complete and submit a self-awareness inventory to the teacher.

STRATEGY NUMBER VIII

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM To foster career awareness within the context of creating a newspaper.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students will be able to describe the functions and requirements necessary to perform a particular job on a newspaper.	A person should feel free to assume a "job" based on his abilities and/or interests.	Role playing: After the teacher evaluates "The Self-Awareness Inventory" and the news articles written by the students, assign students to diversified tasks to help create the newspaper. All the following may be done simultaneously: 1. Have a puzzle 2. Have a comic 3. Edit articles 4. Have a group of students use mimeo to print the paper. 5. etc.	Art Teacher Books - See bibliography for students. Media Center

EVALUATION PROCEDURE: The teacher's judgement will decide how and to whom the class newspaper will be distributed.

STRATEGY NUMBER IX

NAME OF UNIT Headlines and Deadlines

GRADE/SUBJECT 4 - 6

MAJOR AIM To foster career awareness within the context of creating a newspaper.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to follow reporter's methods in writing a story.	A newspaper story must meet certain criteria.	Production of a class paper will take four major steps: a) Obtain your information b) Write the articles c) Edit the articles d) Print or type up the articles on mimeo. Different students will work on the following activities---remember to assign DEADLINES for at least the first three steps. On step 4 the class can work together in putting the newspaper together. That particular DEADLINE may remain more flexible.	

Examples of activities: (All of the suggested examples require the teacher to point out counterparts in "real" newspapers. These may then be used as guides.)

Assign reporting tasks to different students, providing a variety of methods to obtain the required information.

*See below

(1) Have a student tape an interview with a prominent member of the community. (e.g. the Mayor, a council person; a member of the school board, school administration, or faculty; the owner of a local sweet shop; a familiar policieman, etc.)
Important: Why did this individual choose this particular career?

After the tape is returned have the student transcribe the interview and write the article using his discretion on what information should be included and what should be omitted.

(2) Assign one or more students to cover a sporting event at the school.
(3) Assign one or more students to cover a student council meeting.
(4) Have a student review a school assembly, or TV show, or movie.

(Activities should be done simultaneously.)

EVALUATION PROCEDURE: *On all interviews have the student outline the interview first. Be sure the student knows what questions to ask. Included should be questions of interest to the class.

STRATEGY NUMBER X

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM To foster career awareness within the context of creating a newspaper.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to recognize that there are sections of the newspaper that entertain as well as give information.	A newspaper not only informs; it also entertains	Examine the papers again. This time look at special interest pages. (comics, puzzles, fashion, gossip, advice.) Have interested students adapt these pages to school related events. Examples: (1) Comics: Those students with artistic talent will need little supervision to complete this task. (2) A crossword puzzle including: (a) teacher's names, (b) student's names, (c) subjects, (d) TV programs, (e) athletes (f) street names (g) material covered in class, (h) vocabulary words!	

(3) Fashion: A discussion on styles popular in school. How are they different from last year? Dress outside of school. How does it effect you?

(4) Music: The popular songs in the class may be listed or discussed.

(5) Gossip: A column dedicated to the in's and out's of being a student.
e.g. Joe Blow has a new job at_____
The basketball team is expected to_____
"Grape vine" has it that traffic lights will be installed in the halls.
The first floor men's room was recently dedicated as the _____Club House.
* A humorous slant on gossip makes it easier to interest the student.

(6) Photograph (or any hobby) Corner: If photographs can be reproduced inexpensively a photo editorial may be produced.
or
A student may discuss hobby possibilities

(all are simultaneous activities)

EVALUATION PROCEDURE: _____

STRATEGY NUMBER XI

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM To foster career awareness within the context of creating a newspaper.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
Using all the information previously gained, the class will be able to produce their own finished product of a newspaper.	There are many skill jobs on a newspaper.	(1) The teacher or editor-in chief, will collect all the articles, pictures, stories, etc. that have been submitted for the class newspaper. (2) Then, the editors will proofread the articles to determine which ones will actually be included in the newspaper. (Some, or all articles may be good.) (3) The layout of the paper has to be determined by the layout staff. (e.g. news--local, national or international) entertainment, sports, fashion, fun page, advertisements, etc. (4) Once this has been established, and the paper has been placed in suitable format, it should be typed on a mimeograph stencil, or rexograph master. Enough copies should be run off for the entire school. *Students should be involved in the production, typing (if possible), rexographing (if possible), and distribution of the newspaper.	

EVALUATION PROCEDURE: The teacher decides how, and to whom the class newspaper will be distributed.

STRATEGY NUMBER XII

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM An understanding of the elements of journalism

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The student will be able to recognize the differing opinons found in major papers.	A variety of newspapers offer a variety of opinions on many diversified subjects. (Liberal or Conservative)	An introduction comparing different newspapers and their format may be started off with the following lead questions: (1) Where does each paper place the article of most importance? (2) What effects do the headlines have? (3) Do mottos tell us anything? (e.g. "All the news that's fit to print." "New York's picture newspaper.") (4) Do the ads, and the way they are laid out, tell us anything about that particular readership?	New York Daily News New York Times Journal News Bergen Record

EVALUATION PROCEDURE: Have students read editorial on the same topic, but from different papers, and write a paragraph defending one editorial opinion over another.

STRATEGY NUMBER XIII

NAME OF UNIT Headlines and Deadlines GRADE/SUBJECT 4 - 6

MAJOR AIM To foster career awareness within the context of creating a newspaper.

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
The students will be able to design and complete a questionnaire which will evaluate their working knowledge of a newspaper.	There are many career families within the newspaper industry.	Have students design and complete a questionnaire which will evaluate the entire project in terms of career awareness. Sample Questions: (a) Was the job you had easier than you had anticipated? More difficult? (b) Did you learn anything about the qualifications and requirements necessary to complete the job? (c) What other occupations on a newspaper might you be interested in now that you have learned about many different jobs? (d) Can you explain how all the jobs in the newspaper are INTERDEPENDENT?	

EVALUATION PROCEDURE: Completion of the student-made questionnaire.